Printed by order of the Sanitary Committee.

Borough of Leicester.

FORTY-FIFTH

ANNUAL REPORT

UPON THE

Health of Leicester,

1894,

INCLUDING THE REPORT OF THE FEVER HOSPITAL,

A Resumé of the Censal (1891) Returns, a Special Report on Workshops, and the proceedings taken to prevent Adulteration of Food, &c.

BY

JOSEPH PRIESTLEY, B.A. (Lond.), M.D., D.P.H.,

&c.,

Medical Officer of Health; Medical Superintendent to the Fever Hospital; Public Analyst for the Borough.

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HEALTH DEPARTMENT,
TOWN HALL, LEICESTER,
February, 1895.

To the Chairman and Members of the Sanitary Committee.

GENTLEMEN,

In presenting you with my Annual Health Report for Leicester, 1894, I have great pleasure in being able to lay before you so favourable an one. It will be seen that you have registered the lowest death-rates (general and zymotic) in the Annals of the Borough, and I can but express a hope that this favourable position which you now occupy may be at least maintained, if not still further improved.

The beginning of the year 1894 saw the end of the Small-Pox Epidemic, so that I have since been able to pay more attention to other subjects of importance, *e.g.*

1.—The abolition of the pails (with the remaining privies) and the substitution therefor of the more sanitary, the more economical, and the more efficient w.c.s ;

2.—A careful inspection (sanitary and otherwise) of the Workshops of the Borough—an important duty cast now upon you by the New Factory and Workshop Act, 1891 ;

3.—The interesting and important Censal (1891) Returns of the Borough, the final volume of which has at last been published.

Finally, I beg to remind you of the desirability of building a new Infectious Diseases Hospital in which to treat not only Scarlet Fever but also Typhoid, Diphtheria and other Infectious Diseases (except Small Pox) as occasion might arise ; and of the absolute necessity of being provided at an early date with new and more extensive Small-Pox isolation accommodation away from the Town, so that the *temporary* Small-Pox Wards may be removed (as promised) from their present site and dangerous proximity to the Scarlet Fever Wards.

I have the honour to be, Gentlemen,

Your obedient servant,

JOSEPH PRIESTLEY,

Medical Officer of Health.

REPORT

OF

Medical Officer of Health

FOR 1894.

PART I.

SANITATION GENERALLY.

Health of Leicester in 1894.—The corrected* number of Deaths in Leicester during 1894† is 2730, and of these 474 were from diseases of the Respiratory Organs (including 439 from Bronchitis and Pneumonia), 402 from Zymotic Diseases generally (including 106 from Measles, 176 from Diarrhœa, 30 from Scarlet Fever, and 27 from Typhoid Fever), 207 from Phthisis, 98 from Cancer, 508 from Developmental Diseases (consisting of Premature Births, Atelectasis, Congenital Malformations, Teething, Atrophy, Inanition, Debility and Old Age), and 144 from Convulsions.

The estimated population to the middle of the year 1894 is

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* *i.e.*, Institution deaths distributed.

† *i.e.*, 52 weeks ending December 28th, 1894.

189,136, so that the corrected Death-rate is 14·4 per 1000 of the population.

383 of the deaths occurred in Public Institutions, and may be classified as follows :—

	Quarters.				
	1st	2nd	3rd	4th	Total
Infirmary — Inhabitants of Borough	28	24	33	32	117
Infirmary — Non-residents of Borough	8	13	6	7	34
County Asylum, non-residents of Borough ...	14	9	12	7	42
Workhouse	53	28	29	38	148
Borough Asylum	13	6	8	5	32
Fever Hospital	3	4	2	1	10
Totals ...	119	84	90	90	383

Those Institution-Deaths which belong to Leicester may further be classified as follows :—

INSTITUTION.	0 to 1 year.	1 to 5.	5 to 60.	Over 60.	Total All Ages.	Phthisis.	Respiratory Diseases.	Developmental Diseases.	Convulsions.
Infirmary	5	18	84	10	117	2	20	83	0
Workhouse ...	6	4	51	87	148	13	21	102	1
Borough Asylum ...	0	0	21	11	32	2	3	27	0
Fever Hospital ...	0	5	5	0	10	0	0	0	0

N.B.—The local Registrar returns the total Deaths (up to December 28th, 1894) as 2806, from which I subtract 76 as representing people who died in Public Institutions in Leicester, but who belonged to places outside the Borough (33 from the Infirmary, and 43 from the County Asylum).

Zymotic or Infectious Diseases in 1894.—Scarlet Fever, Measles, Typhoid Fever and Diarrhœa have been epidemic during the year.

Scarlet Fever.—The epidemic 1892-3 began to wear itself out in 1894, the end of which year saw the Health Department with only 17 Scarlet Fever infected houses to look after. Theoretically, with such a condition of affairs, it ought to be possible to stamp out Scarlet Fever. Practically, however, it is not so for many reasons. Thus, some cases are so exceedingly mild as to escape notice altogether, but still they have the power of spreading the disease to others. Not only does this apply as between persons living in the same place but also as between different places, communication being kept up by some of the well-known means, *e.g.*, railways, postal service, etc. Scarlet Fever is *endemic* (*i.e.*, always present more or less) in all the large centres of population, between which, therefore, there is a danger of germ intercommunication. Again, a fresh susceptible element is appearing year by year and is almost certain to come across the Scarlet Fever germs left in some parts or other of all large Towns, more especially owing to the fact that parents do not regard Scarlet Fever with such dread as they do (for instance) Small-Pox, and consequently do not take the same strict precautionary measures.

In 1894, 855 certificates were received representing 949 cases of Scarlet Fever, of which 413 (*i.e.*, 43·5 %) were removed to the Hospital. There were registered in the Borough 30 deaths, giving a case mortality of 3·1 % *

The end of the epidemic has been on the whole mild though many cases of a severe character have been met with. These mild cases are undoubtedly the means of the epidemic still smouldering—a state of affairs that will in all probability continue until the susceptible element accumulates, and becoming infected, causes the smouldering epidemic to flare up again. In other words, Scarlet Fever is endemic in Leicester (as it is in other large centres of population), becoming epidemic at intervals.

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* Mortality of cases treated at Hospital was 2·17 % as compared with 3·9 % for those treated at home.

The usual exacerbation of Scarlet Fever took place in the last quarter of the year (see Table D, page 15) while the age-incidence of this disease is well shown by reference to Table ~~XII.~~ XI, page ~~56.~~ 63 No Scarlet Fever outbreak attributable to milk occurred during the year, nor did the disease break out in any School (public or private), or other Public Institution, so as to call for special action.

A large quantity of Scarlet Fever infected bedding, etc., has been sent to the Hospital for disinfection, whilst many Notices under the Infectious Diseases (Prevention) Act have been served for the thorough disinfection (*e.g.*, scraping and repapering of walls, etc.) of infected houses.

Before leaving the subject of Scarlet Fever I may mention that in connection with the exacerbation of the disease towards the end of the year—an exacerbation in part due in my opinion to the indirect influence of Schools—I had an interview on October 22nd, 1894, with the School Management Committee of the Leicester School Board, with the result that several important changes have been made in their rules for infectious diseases generally.*

Whooping Cough and Measles.—These two diseases cause a high mortality, varying somewhat year by year, *i.e.*, they visit the Borough in epidemic cycles. This is well seen on comparing 1893 with 1894. During 1893 Whooping Cough was epidemic—severely so, for there were registered 112 deaths; during 1894 this epidemic practically died away, there being only 12 deaths (the smallest number registered for the last 25 years). Measles on the other hand during 1893 caused 52 deaths as compared with 106 for 1894, so that a Measles epidemic during 1893 continued to increase in 1894.

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* A copy of these Rules is to be found in the Appendix to this Report.

TABLE A.

Deaths from principal Infectious Diseases in the following 33 large Towns of England and Wales.

Name of Town.	Estimated Population (middle 1894)	Small-Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhœa.
London	4,349,166	93	3292	964	2513	2094	653	1780
West Ham	238,184	49	229	36	190	101	45	108
Croydon	111,921	...	40	8	32	62	7	23
Brighton	118,715	...	36	4	26	14	11	52
Portsmouth ...	170,973	4	138	15	33	41	27	74
Plymouth	87,931	5	3	8	5	78	11	20
Bristol	226,578	16	114	16	48	176	22	69
Cardiff	148,890	1	11	8	69	123	8	68
Swansea	95,399	...	26	23	10	77	12	20
Wolverhampton ...	85,036	5	72	53	35	28	17	64
Birmingham ...	492,301	170	327	76	75	214	106	257
Norwich	105,645	...	22	15	18	38	23	43
Leicester ...	**189,136**	...	**106**	**30**	**12**	**12**	**27**	**176**
Nottingham ...	223,584	3	134	51	18	118	62	134
Derby	98,796	...	64	15	5	16	26	34
Birkenhead... ...	105,627	1	92	12	41	67	17	48
Liverpool	507,230	20	299	229	97	276	297	508
Bolton	118,303	...	21	9	10	59	26	90
Manchester... ...	520,211	23	224	113	146	287	96	346
Salford	205,828	2	146	112	63	140	63	141
Oldham	138,755	23	56	21	39	57	15	44
Burnley	96,478	...	36	51	29	17	27	77
Blackburn	125,797	...	13	9	18	42	33	86
Preston	111,425	1	37	12	8	46	29	157
Huddersfield ...	98,511	...	13	23	22	54	12	18
Halifax	92,861	4	33	3	12	19	6	4
Bradford	223,985	27	115	72	17	68	30	65
Leeds	388,761	3	290	52	73	131	52	175
Sheffield	338,316	...	165	40	66	239	64	191
Hull	212,679	3	93	39	29	81	40	88
Sunderland... ...	136,101	...	116	25	9	70	72	113
Gateshad	93,372	1	93	6	21	31	23	44
Newcastle	201,947	...	196	29	32	154	27	97

NOTE.—The above Figures are taken from the REGISTRAR-GENERAL'S QUARTERLY RETURNS.

It certainly does seem a blot on preventive medicine that Sanitary Authorities can apparently do nothing in regard to these two diseases, which together cause a hugh mortality and an enormous amount of suffering and distress amongst their victims. With notification to shew where these diseases exist we might perhaps be able to do something in regard to lessening their mortality and minimising their serious after-effects, though at present the experience of those Towns, which have adopted notification of Measles, is not satisfactory—it being difficult for them to shew that any real good has accrued therefrom. So long as mothers will persist in regarding Measles and Whooping Cough as trifling complaints and diseases to be "got over," Sanitary Authorities will practically be able to do nothing but tabulate the deaths arising therefrom! Notification would certainly bring about a closer relationship between the Health Officials and the mothers who might in this way be educated to look upon these diseases as serious and requiring careful treatment and isolation.

Typhoid Fever.—There has been an improvement as regards Typhoid Fever during the year 1894. 228 cases (27 deaths) were notified in 1894 as compared with 406 (47 deaths) in 1893. Classifying the infected houses according to the nature of their sanitary conveniences (as was done in the Report 1893), we find as follows:—

Out of 228 cases of Typhoid, which have occurred in Leicester during 1894,

(a) 120 have been in houses with pails or privies;*

(b) 108 have been in houses with w.c.s, and of these, 44 have been in houses with w.c.s and ashpits, and 64 have been in houses with w.c.s and bins.

Further, of the 64 houses with w.c.s and bins, 29 shewed, with the smoke test, sanitary defects, viz.:—defective w.c. syphons, 11; defective gullies, traps, etc., 9; defective cellar drains, 7; defective and direct rain water pipes, 2.

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* Only 5 houses with privies (including 2 County cases).

TABLE B.

Shewing the number of Notification Certificates for the principal Zymotic Diseases received in the ten years, 1884-1893, and in the year 1894.

Disease.	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	Certificates received during 1894.	Annual average of ten years, 1884-93
Small-Pox	3	8	1	9	21	0	0	0	39	281	9	36·2
Scarlet Fever ...	701	1816	817	272	132	409	516	794	1331	2308	855	909·6
Diphtheria	184	55	51	81	67	84	75	65	67	139	66	86·8
Enteric Fever ...	55	216	141	222	266	147	165	178	116	392	215	189·8
Erysipelas	239	294	258	308	255	219	207	238	316	353	171	268·7
Typhus	0	0	0	0	0	0	0	0	0	0	0	0
Cholera	0	0	0	0	0	0	0	0	0	1	0	0·1
Puerperal Fever ...	0	8	12	6	8	1	3	2	5	10	6	5·5
	1182	2397	1280	898	749	860	966	1277	1874	3484	1322	1496·7

The above Figures represent "infected houses," not "infected persons."

TABLE C.

Shewing the number of Deaths from the principal Zymotic Diseases in the Years 1884-1893, and in the Year 1894.

DISEASE.	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	Total Deaths in 1894.	Proportion of Deaths to 1000 Deaths in 1894.	Annual average of Ten Years 1884-93.	Proportion of Deaths to 1000 Deaths in Ten Years 1884-93.
Small-Pox	0	0	0	0	0	0	0	0	6	15	0	0	2·1	7·2
Measles	57	52	43	87	77	62	30	84	126	52	106	38·8	67·0	23·1
Scarlet Fever	63	113	44	5	4	6	38	17	41	81	30	10·9	41·2	14·2
Diphtheria	11	14	4	13	13	10	11	14	10	20	12	4·3	12·0	4·1
Whooping Cough ...	66	52	27	55	86	26	16	136	52	112	12	4·3	62·8	21·7
Fevers Typhus	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enteric	16	36	19	31	32	22	24	29	17	47	27	9·8	27·3	9·4
Simple continued	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diarrhœa	344	186	256	247	148	21	218	204	214	399	176	64·4	223·7	77·4
Erysipelas	15	7	5	10	8	5	11	7	7	10	7	2·5	8·5	2·9
Influenza	0	0	0	0	0	0	7	56	33	46	13	4·7	14·2	4·9
Cholera	0	0	0	0	0	0	0	0	0	1	0	0	·1	·03
Puerperal Fever ...	4	4	5	2	2	1	1	0	0	4	2	·7	2·3	·7
Totals	576	464	403	450	370	143	356	547	506	787	385	141·2	460·2	159·2

TABLE D.

Shewing Number of Certificates of Notification received in the Old Borough and Added Areas during 1894.

1894.	Scarlet Fever.		Typhoid Fever.		Diphtheria.		Erysipelas.		Puerperal Fever.		Small-Pox.		Cholera.	
	Old.	Added.	Old.	Added.	Old.	Added.	Old.	Added.	Old.	Added.	Old.	Added.	Old.	Added.
First Quarter ...	171	31	44	4	14	4	37	14	1	1	3	1	0	0
Second Quarter	172	43	24	8	11	5	28	6	1	2	2	0	0	0
Third Quarter...	161	37	86	6	14	5	28	10	1	0	1	0	0	0
Fourth Quarter	193	47	41	2	6	7	35	13	0	0	2	0	0	0
	697	158	195	25	45	21	128	43	3	3	8	1	0	0
	855		215		66		171		6		9		0	

For **Old Borough,** 1076 Certificates were received.
For **Added Areas,** 246 Certificates were received.

The proportion of houses supplied with pails, privies, or w.c.s (with ashpits) to houses supplied ~~houses supplied~~ with w.c.s (with bins) is 2·5 to 1 as compared with 3 to 1 for last year.[†] 47 of the cases were connected with a localised outbreak in the neighbourhood of Archdeacon Lane (full details of which will be given later on)—in my opinion due to the conservancy system of excrement disposal, causing direct infection from person to person through the medium of Typhoid infected pails, as I shall endeavour to shew.

The Autumn exacerbation of the disease is well seen from the following :—

January ...	13	May ...	17	September ..	33
February ...	15	June ...	5	October ...	20
March ...	26	July ...	23	November ...	11
April ...	10	August ...	48	December ...	7

In 14 cases I traced the attacks to places outside the Borough Boundaries, viz. :—Market Harborough, Somerby, Oadby, Anstey, Chatsworth, London, Woodhouse, Skegness, Grimsby, Loughborough, Billston, Thurmaston, Isle of Man, and Cold Overton.

Again, the greatest number of pails is to be found *relatively* in Wards I., II., III., IV., IX. and XIII., ; and the least number in Wards X., XI., XII., XIV., XV. and XVI. Practically speaking, therefore, those Wards that possess the largest number of pails have suffered the most from Typhoid Fever, the pails *per se* not causing Typhoid, but being apparently the medium through which the disease has spread. In this respect the outbreak of Typhoid Fever in the neighbourhood of Archdeacon Lane is specially noteworthy. The area affected is about nine acres, being limited on the North by Little Thames Street and Gas Street, on the South by Archdeacon Lane, on the East by Foundry Lane, and on the West by Thames Street. The area contains a popula-

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[†] The proportion of w.c.s to pails and privies in the 1894 epidemic = 1 to 1·1, whilst the proportion of w.c.s to pails and privies in the whole Borough is 2 to 1, shewing the greater incidence of Typhoid Fever on houses provided with pails and privies as compared with those provided with w.c.s.

Incidence of the Disease upon Wards.*

WARDS.	Inhabited Houses. Census 1891	Enumerated Population, Census 1891	No. of Pails 1894	No. of Pails to each 100 Population.	No. of Typhoid Infected Houses.	No. of Typhoid Cases.	No. of Cases per 1000 Population.	No. of Infected Houses per 1000 Houses.
I.	1047	5133	258	5·02	6	6	1·1	5·7
II.	3040	13948	994	7·1	17	18	1·2	5·5
III.	2591	12171	763	6·2	45	58	4·7	17·3
IV.	3530	16802	1101	6·5	28	33	1·9	7·9
V.	3538	17914	386	2·1	32	35	1·9	9·04
VI.	1723	8342	259	3·1	11	11	1·3	6·3
VII.	2992	14569	374	2·5	10	12	·8	3·3
VIII.	1800	8932	335	3·7	7	8	·8	3·8
IX.	2759	13329	691	5·1	8	8	·6	2·8
X.	2244	11072	191	1·7	4	4	·3	1·7
XI.	1513	7763	209	2.6	3	3	·3	1·9
XII.	1958	9199	74	0·8	4	4	·4	2·04
XIII.	2152	11324	574	5·06	11	15	1·3	5.1
XIV.	2472	12302	369	2·9	5	5	·4	2.02
XV.	1217	5976	43	0·7	1	1	·1	·8
XVI.	1129	5848	79	1·3	5	5	·8	4·4
	35705	174624	6700	3·9	197	226	1·2	5·5
					County	2		

From this Table it will be seen that *relatively* Wards II, III, IV, V, and XIII, have suffered most severley ; X, XI, XII, XIV, and XV least severely.

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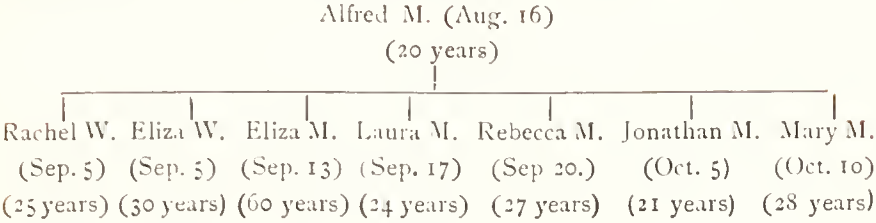
* The Populations of the various Wards in 1894 are unfortunately not known.

tion of 1500 persons living in 380 houses, so that the incidence percentages of the disease was 3·1 of population and 9·7 of houses, for there were in all 47 cases in 37 infected houses.

The first case notified in this area was on June 29th, viz. :— Catherine G., 21 years of age, living at 14, Navigation Street; and the second case was John T., aged 26 years, living at 5, Navigation Street, who was notified on July 17th. No other cases were notified from this area until August when there were 20, followed by 17 in September, 5 in October, 2 in November, and 1 in December. Arranged in Streets, the cases were as follows :—

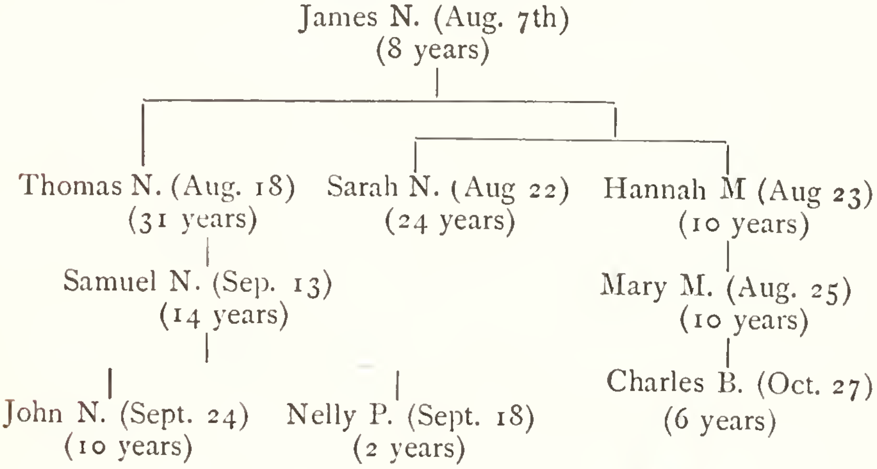
	Persons.	Houses.	No. of Pails in Street.
Navigation Street	17	15	37
Caroline Street	16	10	19
Archdeacon Lane	8	6	43
Charter Street	3	3	18
Little Thames Street	1	1	1
Thames Street	1	1	31
Foundry Lane and Square ...	1	1	15
Totals	47	37	164

In the first place I would draw attention to a series of cases that occurred at 13, Caroline Street, to shew how Typhoid Fever may spread *directly*. The first to sicken at this house was Alfred M. (aged 20 years)—the son—and his case was a severe one, requiring careful and constant nursing, which was done by the mother, assisted by her two unmarried daughters living in the same house, a married daughter living in the same Court, a married son and daughter living near (viz., at 78, Archdeacon Lane), and a neighbour living in the same Street. All these 7 persons sickened with Typhoid contracted, in my opinion, directly from Alfred M., who unfortunately was not removed to an Isolation Hospital when he first sickened (his mother refusing), but who had to be removed to the Workhouse at the end of his illness (there being no one left at the house to look after him). Thus:—


Alfred M. (Aug. 16)
(20 years)
Rachel W. (Sep. 5) (25 years)
Eliza W. (Sep. 5) (30 years)
Eliza M. (Sep. 13) (60 years)
Laura M. (Sep. 17) (24 years)
Rebecca M. (Sep 20.) (27 years)
Jonathan M. (Oct. 5) (21 years)
Mary M. (Oct. 10) (28 years)

N.B.—The dates in brackets are when the Notification Certificates were received. Unfortunately Typhoid Fever is a disease which cannot be diagnosed until a week or two advanced, so that there were several centres of infection unknown to the Authorities, and during the whole of this period pails were being infected and distributed to other houses (in the same or other streets) without careful disinfection.

Another set of cases was traced to 3, Caroline Street, where James N. (8 years old) was notified on August 7th as suffering from Typhoid Fever. Members of the same family, living in the same house or near, and friends living near, sickened afterwards with Typhoid, in all probability caught from this first case. Thus:



Taking the 37 infected houses, I find that 81.~~6~~ % had pails; 18·9 % w.c.s. Further, the houses with w.c.s were all in one street (*i.e.*, Navigation Street), and in close proximity to pails (*e.g.*, in the same Court, etc.), whilst of the 7 w.c. houses infected, one only had defective drains (as shewn by the smoke test) allowing of the escape of sewer gas into the outside w.c. There was an open manhole in front of one of these 7 infected houses, and a few yards from five others. The drains of the 30 pail houses were also tested with smoke, and 8 shewed defects—very slight—in connection with D-traps and rain water pipes. Full enquiries were also made in regards to other well-known causes of Typhoid (*e.g.*, defective sewerage and drainage, contaminated supplies of water, milk, food or drinks); but the results of such investigations were negative, so that I was driven to adopt the theory of infected pails as being the only one which would satisfactorily, and yet practically, explain this localised epidemic.

I personally visited every case and every infected house, and as the result of my enquiries give the following history of this localised epidemic. Owing to a stoppage, the drains at the rear of 62-64, Archdeacon Lane and 3-7, Caroline Street, were opened on July 19, and remained open until the necessary alterations had been effected (viz., until August 2nd). At the commencement of July there had been a doubtful case of illness at 64, Archdeacon Lane, but the patient was unattended by a medical man. From the history of this illness, however, I am satisfied that it was a somewhat mild case of Typhoid Fever, so that we may assume that the drains became specifically infected at that time with the result that, within a fortnight of these drains being opened, at least 5 houses in the immediate neighbourhood became also infected -viz.: 64, Archdeacon Lane (a second case), 3, 5, 7, and 13, Caroline Street. From these centres the disease spread over the special area, and the media through which it spread were, in my opinion, the pails. For it must be remembered that pails from this district would be brought back to the same district, but not necessarily to the same houses or Courts, so that an interchanging of infected pails is more than probable.

Taking into consideration the fact that Typhoid is a disease that is not recognised in its early stages, we can readily understand how pails at the 5 infected houses mentioned having become infected might be distributed to other houses in the immediate neighbourhood, so that the disease would become distributed from one original centre to many others.

The whole area consists of 380 houses, of which 181* are supplied with pails and 199 with w.c.s. (roughly calculated), 16·5 % of the former and only 3·3 % of the latter becoming Typhoid infected—*i.e.*, as 4·7 to 1.

At one time it was thought that a School in Caroline Street was spreading the fever. Enquiry and investigation shewed, however, that this was not so, there being only two patients from the School, one of whom was a teacher living in Gresham Street. The average daily attendance of children at this School is about 160, and it is interesting to note that one pupil only contracted the disease (*i.e.*, Ernest H.,† of 12, Caroline Street) though the open drains at the rear of 3—7, Caroline Street are in close proximity to the School, and in addition the drains of the School itself were opened and altered (owing to a stoppage) about the same time. The explanation that suggests itself to me is that the young ages of the children rendered them non-susceptible to the disease (19·1 % only of the cases being under 10 years of age, a very small proportion when we remember the numbers of young children running about this district). All absentees were visited and the causes of their absence enquired into by myself or Inspectors.

Isolation, disinfection, flushing of sewers and yard drains, and house to house inspections were the means adopted in dealing with this localised outbreak. All the houses in the area were examined but sanitary defects were only found in 26 ‡ (*i.e.*, 6·8%), but of these eleven were Typhoid infected.

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* The pails of the particular district under investigation are arranged in Streets as follows:—Archdeacon Lane, 43, Navigation Street, 37; Thames Street, 31; Caroline Street, 19; Charter Street, 18; Foundry Lane and Square, 15; Gas Street, 9; Queen Mary Street, 8; Little Thames Street, 1; and we notice that those Streets with the largest number of pails have suffered most from Typhoid, whilst the only infected houses in Little Thames Street was the *only* house in that Street with a pail.

† Ernest H. probably contracted his disease from his grandmother's house (13, Caroline Street).

‡ Defects found at 48, 76, 78, 80, Archdeacon Lane; 12-14, 16-18½, Queen Mary Street; 13, 14-18, 26-42, 44-46, Chater Street; 20-36, 44, 17-19, 35 6, 8, 10, 12, Caroline Street; 5, 35, 52, 29-31, 16-18, 1-5, Court B, Navigation Street; 18, 61, Thames Street; 2, Little Thames Street.

The red Typhoid-pails (removed at least twice weekly) were used as during the 1893 epidemic (see Report 1893, page 27).

During 1894 as in 1893 (see Annual Report, page 25) the majority of the cases have occurred upon the gravel and sand, the clay apparently escaping.

The age incidence of the attacks too is again noteworthy, thus :—

Ages.	1893.	1894.
Under 1 year	0	0
1—5 years	42	15
5—10 years	65	40
Total under 10 years ...	107=26·3 %	55=24·1 %
10—15 years	88	44
15—25 years	110	67
25—35 years	63	42
35—45 years	25	10
Total 15—45 years (*i.e.* adolescence)	198=48·7 %	119=52·1 %
45—upwards	13	10
Total over 10 years	299=73·6 %	173=75·9 %
Males	217	117
Females	189	111

All the infected houses were carefully examined and tested with smoke with the result that in 89* cases, *i.e.*, 45·1 % of the houses, defects, more or less serious, were found. In some cases, however, the defects were so trifling as hardly to warrant us in connecting them with the disease as cause and effect. Indeed, there are doubtless many factors (not yet explained) at work in causing Typhoid disease in a Town. 121 cases of Typhoid were treated at the Infirmary, and of these 11 died, giving a low case-mortality of 9·09 %

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* *e.g.*, Defective and direct rain water pipes, 12 ; open or defective gullies, traps, etc., 41 ; defective w.c. syphons, 15 ; defective drains, 16 ; open manholes opposite, 3 ; choked drains, 2.

Diarrhœa.—The total number of deaths registered was 176 of which 153 were infants under 1 year of age, and 14 were between 1 and 5 years. Taking the registered number of births as the infantile population, we find that the Diarrhœa mortality rate under 1 year of age is 2·5 %, as compared with a total mortality rate for the same age-period of 16·1 %. There was the usual seasonal exacerbation of the disease during July and August, the largest number of deaths being registered during the week ending August 15th, 1894. In this connection it is interesting to note that the 4-foot earth temperature registered 56°F. for the first time on July 2nd, 1894, the following 15 *weekly* registrations being 57·5°, 58·5°, 58·5°, 58·5°, 58·5°, 58·5°, 58·5°, 57.5°, 57·5°, 56·5°, 56°F., 55·5°, 54°, 53·7°, 52·7°.

56°F. is stated to be the "critical" 4-foot earth temperature, *i.e.*, the temperature at which certain changes (putrefactive, bacterial, etc.) take place in the pores of the earth, with the consequent development of the diarrhœal poison. From the time that this "critical" temperature is first registered, we ought to allow about 14 days (7 for the average duration of the disease before death, and 7 for the average interval between the death and its notification to the Health Department through the Registrar) after which the number of deaths ought rapidly to increase. During 1894 July 2nd saw the 4′ earth thermometer first registering 56°F., and within 14 days from that date, the weekly number of deaths from Diarrhœa greatly increased *(See Table E)*.

On September 21st, the 4-foot earth temperature sank below 56°F. (*viz.*: to 55·5°F.), and with it the number of Diarrhœal deaths rapidly declining (allowing, of course, the 14 days interval as before). The cause and effect relationship between the 4′ earth temperature of 56°F. and Summer Diarrhœa deaths has therefore been well shewn in Leicester during 1894—the temperature being, apparently, the *immediate* existing cause. Considerable attention has been given to the subject of Infantile Diarrhœa during the past year, and each house at which a death from this disease has taken place has been visited, and the following carefully-selected questions answered. It is, of course, difficult to draw trustworthy

TABLE E.

Weekly Deaths from Diarrhœa.

	1889	1890	1891	1892	1893	1894
Week ending June 20 ...	3	4	0	5	18	0
,, 27 ...	8	5	3	3	34	1
July 4 ...	17	8	1	4	37	4
,, 11 ...	24	17	1	5	41	5
,, 18 ...	28	17	7	16	42	8
,, 25 ...	23	15	12	12	42	15
August 1 ...	20	16	17	13	33	20
,, 8 ...	17	20	15	9	20	22
,, 15 ...	19	14	18	13	14	28
,, 22 ...	13	13	22	11	12	16
,, 29 ...	4	17	15	15	17	14
Sept. 5 ...	9	13	11	26	13	8
,, 12 ...	5	4	16	21	8	8
,, 19 ...	5	6	8	12	13	4
,, 26 ...	2	4	12	8	10	3
Oct. 3 ...	1	7	11	4	9	3
,, 10 ...	4	10	9	5	8	1
,, 17 ...	2	11	5	2	0	0
,, 24 ...	0	3	3	0	5	0
,, 31 ...	0	1	4	1	1	2

conclusions from such a few cases as 153, but I hope that similar statistics, when they have extended over a period of 5 or 10 years, may be of advantage in assisting us at arriving at some further solution of the etiology of this interesting disease.

LIST OF QUESTIONS AND ENQUIRIES.

Patient:—Name. Address. Exact Age. Date of Death. Duration of Illness. Did Illness come on suddenly? Previous State of Health. Was Patient accustomed to Sleeping Draughts? Any Premonitory Diarrhœa? Any Complications? Any Relapses *i.e.*, did Patient appear to get better under Treatment? How long was Medical Man attending?

Mode of Feeding:—1.—Breast. 2.—Breast and Bottle. 3.—Breast and Food. 4.—Breast and Bottle and Food. 5.—Cow's Milk. 6.—Condensed Milk. 7.—Nature of Food.

Was Child Insured? Was there continuous vomiting? Was there continuous purging? Vaccinated or not? Was child put out to Nurse?

Parents:—Age. Nationality. State of Health.

How many Children Living and Ages? How many Children Dead, Ages, and Causes of Death? How many Children are Insured? Does Mother go out to Work? Nature of Work? What Members of same Family are, or have been lately, ill with Diarrhœa?

Mode in which People are living:—General Neglect or otherwise.

General Condition of Homes:—*e.g.*, Ventilation. Dryness. General Sanitary Surroundings. How many Rooms in House? Cleanliness. Closet accommodation. Are Yards Paved? Existence of any Nuisance.

Water Supply. Nearest Sewer Grid. Open or Closed?

Probable Cause of Disease. Assigned Cause of Disease.

Remarks:—

Before leaving the subject of Diarrhœa, I would draw attention to the fact that the 1894 Diarrhœa death-rate per 1000 deaths from all causes (*i.e*, 64·4) is the lowest recorded for the last

25 years with the 3 exceptions of 1879, 1883, and 1888 when the rates were 33·2, 59·58, and 56 respectively. Climatic influences (low earth temperature, complete dryness of weather, etc.) have undoubtedly assisted in bringing about so satisfactory a condition.

Diphtheria.—The number of certificates received was 66 in 1894, as compared with 139 in 1893. The number of deaths was 12, giving a case-mortality of 18·1 %. As this is a low mortality, we may assume either that the type of the disease was very mild, or that diagnosis was at fault.*

Diphtheria and membranous croup may practically be grouped as the same disease in the light of experience gained from bacteriological examination.

Diphtheria is undoubtedly increasing on all sides in Leicestershire, and as a County Borough where large numbers of children congregate in Schools, you must be prepared for the disease spreading into your midst, more especially as it has already done, or is at present doing, so in other large Towns which may be compared with Leicester. Further, an examination of Leicester's statistics for Diphtheria shews a small, but persistent, increase in the number of deaths registered, as well as in the number of notifications received. Thus :—

	Deaths.	Average deaths per million living.	Cases Notified.
Average 1856—64	3·4	61·4	—
1865—74	6·5	68·4	—
1875—84	9·8	82·6	59·6
1885—94	12·1	75·1	75·0

In face of these figures coupled with the fact that Diphtheria is increasing in most urban districts, including those in Leicestershire County, you ought to be prepared for action. I must remind you that you possess no means of isolation for this disease, so that one important line of defence is wanting. Another point requiring emphasis is the importance of arranging for the bacteriological diagnosis of the cases—not only with a view to having

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* 8.8 % of the Diphtheria cases returned in 1893 to the Asylums Board were wrongly diagnosed.

TABLE F.

Diphtheria Statistics—Leicester. 1856–94.

Year.	Population.	No. of Deaths.	Deaths per million living.	Year.	Population.	No. of Deaths.	No. of Notified Cases.	Deaths per million living.
1856†	64366	2	31	1876	108,599	10	...	92
1857	65199	5	76	1877	111,355	9	...	80
1858	65885	4	61	1878	114,182	5	...	44
1859	66663	10	150	1879	117,083	11	...	94
1860	67456	2	30	1880	120,059	23	87	192
1861	68638	4	58	1881	123,146	11	63	89
1862	70986	2	28	1882	126,275	5	38	40
1863	73413	7	93	1883	129,483	6	26	46
1864	75922	2	26	1884	132,773	11	84	83
1865	78516	3	38	1885	136,147	14	55	102
1866	81197	3	37	1886	139,606	4	51	29
1867	83970	3	36	1887	143,153	13	81	90
1868	86837	10	115	1888	146,790	13	67	89
1869	89804	9	100	1889	150,520	10	84	66
1870	92873	11	118	1890	154,344	11	75	71
1871	95823	7	74	1891	177,353	14	65	78
1872	98251	2	20	1892	180,066	10	67	55
1873	100,741	7	69	1893	184,547	20	139	108
1874	103,294	8	77	1894	189,136	12	66	63
1875	105,913	7	66					

† Diphtheria is a disease which is supposed to have been imported into England in 1856 from France, where it had been epidemic for about 50 years previously.

N.B.—The local Notification Act came into force in 1879 and from that the year numbers of notifications (Diphtheria) received are added. 1892-3-4 refer to the extended Borough of Leicester.

the first diagnosis correct but also to enable medical attendants to say with greater certainty when convalescents may with safety mix with others, *e.g.*, in schools or elsewhere. The method adopted is to have a suitable nutrient medium, *e.g.*, solidified blood serum or agar jelly mixed with bouillon broth, and to inoculate it with some of the membrane or discharges from a suspected case of Diphtheria, or with the nasal or throat secretions from a cenvalescent Diphtheria patient. The inoculated medium is then to be incubated at suitable temperatures for 12 to 24 hours and the cultivated bacteria examined microscopically. If the Diphtheria bacillus be found, either the case is one of Diphtheria or the convalescent patient is still infectious and therefore must be isolated for a still longer period before being allowed to mix with others. The cost of such bacteriological diagnosis would be slight. With this simple means of diagnosis at hand together with proper isolation accommodation and efficient methods of disinfection, Diphtheria ought to make no serious headway in Leicester: without them you are in constant danger.

As to the new antitoxin serum treatment, this is a matter that must be left to the individual medical attendants: suffice it to say that it has been, and is still being, tried in Leicester. Theoretically, the treatment is a good one, and its practical application can only be judged of from statistics which are now rapidly accumulating in all Countries. If the treatment lessens the Diphtheria mortality by half of what is stated, it is exceedingly valuable, and the Sanitary Committee ought to be at all times provided with a sufficient quantity of the pure material for use by medical practitioners, for as a Health Authority you have not only to improve the sanitary state and surroundings of the people so as to prevent diseases, but to assist in treating some at least of those who have already contracted them. All Diphtheria-infected houses are examined, and tested with the smoke machine, for sanitary defects.

Puerperal Fever.—Six cases were notified, and two died. The usual precautions were taken in regard to disinfection, etc., in all the cases.

Infectious Diseases Reported under the Local Notification Act.—The diseases are Small-Pox, Infectious Cholera, Scarlet Fever, Typhus, Typhoid, Erysipelas, Puerperal Fever, and Diphtheria. Typhus and Cholera have been absent during 1894, and the following is the total number of Certificates of Infectious Diseases received :—

Year.	Cholera.	Small-Pox.	Scarlet Fever.	Typhus.	Typhoid.	Erysipelas.	Puerperal Fever.	Diphtheria	Totals.
1892	0	39	1331	0	116	316	5	67	1874
1893	1	281	2308	0	392	353	10	139	3484
1894	0	9	855	0	215	171	6	66	1322

N.B.—The above represent infected "houses" and not "persons," whilst of 1322 certificates received in 1894, 1076 refer to the Old Borough and 246 to the Added Areas. *(See Table D).*

Small-Pox.—9 Certificates were received, but one was cancelled, the patient being found to be suffering from Chicken-Pox. Of the 8 cases of Small-Pox, two were in connection with the 1892-3 epidemic, 4 were imported from other Towns (2 from Birmingham, 1 from Manchester, and 1 from Rotterdam), and in two* the source of the disease could not be definitely traced. ~~Five~~ of the patients were vaccinated ~~adults~~, and one an unvaccinated child. There were no deaths. Full particulars are to be found under Fever Hospital statistics.

During the year in connection with Small-Pox, 47 doubtful cases of "spots" were reported, and may be tabulated as follows :— 28 Chicken-Pox, 4 Small-Pox, 2 Measles, 2 Eczema, 3 Erythema Rheumatica, 5 Scabies, 2 Ache, 1 Porrigo. The importance of such cases being reported to the Health Department cannot be over-estimated : responsibility is in this way removed from the

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* One sickened in the County—just outside the Borough Boundaries, but was taken to the Borough Hospital.

Medical Practitioners to the officials of the Health Department, who can take the necessary precautions as to isolation, etc., if required.

Erysipelas.—171 cases were notified, and of these the majority were mild. 47 only were of a severe type, and of these 7 died (including one under 1 year of age).

Influenza.—The epidemic at the end of 1893 continued into the year 1894 (5 deaths being registered in the first quarter). It then lulled, but broke out slightly again during the fourth quarter. During the year there have been registered 13 deaths, and of these 4 were under one year of age, 1 between one and five, 2 between five and twenty, and 6 over twenty.

Mumps caused one death in an infant (female).

Houses Unfit for Habitation.—During the year, 89 houses have been certified by the Medical Officer of Health to be unfit, and the necessary steps taken to have them put into thorough repair, or to have them closed.* The new Railway (M.S. and L.) route through Leicester will be the cause of some insanitary and dilapidated properties being demolished.

Destructors.—The three Destructors in the Town are doing excellent service in connection with the burning of the domestic refuse as the following table shews :—

Number of Loads of Refuse Destroyed during 1894 and preceding years 1891-94.

YEAR	NEDHAM ST.			MILL LANE.			THE LERO.			TOTAL.		
	Tons.	Cwt.	Qrs.	Tons.	Cwt.	Qrs.	Tons.	Cwt.	Qrs.	Tons.	Cwt.	Qrs.
1891	11949	7	2	...			...			11949	7	2
1892	15227	16	0	...			...			15227	16	0
1893	14501	14	0	9988	8	1	2049	11	2	26539	13	3
1894	10816	5	3	10781	13	2	11133	5	1	32731	4	2

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* In regard to 8 of the 89 houses, nothing has yet been done—but the necessary arrangements are, I believe, being made.

Conservancy Systems of Excretal Removal.—In connection with the Typhoid epidemics of 1893 4—epidemics which had, in my opinion, been caused in part at least through the agency of pails, I brought up a Report which was printed and sent round to the members of the Sanitary Committee. In this Report, I endeavoured to shew the advisability from all points of view of changing the pails and privies into w.c.s, and I trust that this matter will be carefully considered, and action taken in relation thereto at the earliest possible moment, either by Provisional Order and Loan, or otherwise.

Water Supply.—The Water Engineer reports that the drought of 1892 and 1893 continued in 1894, and notwithstanding the fact that the water supply was limited from the 1st January to 19th September to 14½ hours per day, and from 19th September to November 15th to 11 hours per day, and from November 15th to the end of the year to 16 hours per day, the crisis of exhaustion of the stock became very serious, for on the 26th October the total quantity in both Thornton and Bradgate Reservoirs was reduced to 87,000,000 gallons, the greater part of which was muddy water at the bottoms of the Reservoirs, and therefore unsuited for domestic use.

The Water Committee, therefore, on the advice of the Water Engineer proceeded to lay the new mains from Swithland Valley to the Bradgate Reservoir, and pumps were erected in the Swithland Valley by which the yield of water from the Swithland drainage area was pumped back to Cropstone as a supplementary supply: this source was commenced on 1st May.

Further, many of the deep wells in the Town and neighbourhood were examined, and samples taken and submitted for analyses, but the great majority of these well waters were found to be totally unfit for domestic use. Eventually the following sources of water were decided upon, viz.:—The Desford Brook, Wells at Messrs. Pickard & Sons, Southgate Brewery, Bedehouse Meadows, Evington, Dane-Hills, Messrs. Fielding and Johnson, Hawley and Johnson, Aylestone, and Oadby. Several of these sources, however, had to be abandoned, some because the water was of bad quality, and others because the supply was not sufficient to be of any service. The sources which were finally approved of by the Medical Officer of Health were pumped under pressure direct into the Mains, and by these means the extreme difficulty of being absolutely without water was overcome, though at the expense of the water supply, obtained from deep wells for these temporary purposes, being very hard.*

These supplementary supplies were kept at work up to the end of the year, when the stock in the Reservoirs was 499,000,000 gallons.

The cost of the supplementary water supply is stated to have been £6618 9s. 10d.—a sum of money which the Water Department propose to pay out of Reserve Fund.

Great credit is due to the Water Committee and their Engineer for having successfully tided the Town over a most anxious period, and for having been able to give to the inhabitants a supply of water (limited in amount, but of fair quality) whilst the Reservoirs were practically empty.

The rainfall for the year 1894 was 23·31 inches at Thornton, and 23·72 inches at Bradgate, and the total quantity delivered to consumers was 921,681,570 gallons. The estimated number of consumers on the books of the Department at the end of December, 1894, was 209,575 persons, so that the total consumption is 12·27 gallons per head per day, viz.: 4·08 gallons per head measured by meter for trade purposes, and 8·19 gallons per head per day for domestic and all other purposes.

The new Swithland Reservoir works were let to Messrs. Aird and Son, on the 16th April, at £133,511.

The extension works at Cropstone were let as follows:—Filter Beds, Messrs. Bentley, £15,219 6s. 5d.; Engine House, Mr. J. E. Johnson, £5,595; Messrs. Easton and Anderson, Engines, £4,143 6s. 6d.; Boilers, Mr. E. Danks, £1,241 18s. 6d.

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* Further details (as to the analyses of these auxiliary supplies, etc.) will be found in the Public Analyst's Report.

The Swithland Engines were let to Messrs. Easton and Anderson at £8,772 4s. 9d., and Valves to Messrs. Blakeborough at £8,372 2s. 10d.

The first sod of the new Swithland works was turned over by the Chairman of the Committee (Mr. Ald. Wood, J.P.), on July 5th, 1894.

Slaughter Houses and Meat Inspection, etc.—Inspector Coles has paid 9734 visits to Slaughter Houses, Shops, and Cowsheds, and 277 visits to the Cattle Market, and has condemned (and had destroyed) 27 tons 17 cwts. 2 qr. 27 lbs. of meat, fish, and fruit, together with 158 heads of rabbits and ptarmigans, 3360 oranges and 1200 eggs. Meat salesmen, etc., are accustomed to send for the Inspector to give his opinion as to the fitness of carcases or portions of carcases to be used for human food. This is not the duty of a Meat Inspector: all he ought to do is to seek for meat that is unfit for human consumption and then take the necessary steps to have it seized and condemned. A salesman or butcher ought to be, is *qua* his vocation, a judge as to whether or not food, that is being offered for sale, is fit.

Bakehouses and Offensive Trades.—The Bakehouses have been systematically inspected, whilst one or two applications to be allowed to boil tripe in crowded localities have been refused by the Committee during the year.

Legislative Sanitation.—But few Acts bearing upon Sanitation and Public Health Administration have been passed during 1894, but of these the following deserve mention.

London (Equalisation of Rates) Act 1894, 57 and 58 Vict., c. 53—institutes *inter alia* a quinquennial census of each Parish in the administrative County of London, the first to take place on March 29th, 1896. Statistically, for London this is a most important Act.

The Local Government (England and Wales) Act 1894, 56 and 57 Vict., c. 73—is for the establishment of Parish and District

Councils and for completing the reform of Local Government. It is a comprehensive Measure establishing Parish Meetings and Parish Councils, and exchanging the existing rural and urban Sanitary Authorities for district councils popularly elected, whilst the poor law Boards of Guardians are to be elected henceforth by the "Parochial Electors." Urban Sanitary Authorities become Urban District Councils with their urban district; Rural Sanitary Authorities become Rural District Councils with their rural district, taking over in addition the charge of Highways. Any Rural Parish consisting of less than 200 inhabitants is to be grouped with some adjoining Parish or Parishes. There is to be a Parish Meeting for every Rural Parish and a Parish Council for every Rural Parish consisting of a population of 200 or upwards. Boroughs remain as before.

The Plumbers Registration Bill has again been blocked during the year, and the all important subject of increased efficiency in plumbing work has been put back in consequence.

Housing of the Working Classes Act 1894, 57 and 58 Vict., c. 55.—explains the provisions of Part II. of the 1890 Act with respect to powers of borrowing under a scheme for reconstruction.

Diseases of Animals Act 1894, 57 and 58 Vict., c. 57—is an Act to consolidate the Contagious Diseases (Animals) Acts 1878—1893, including the Slaughtering, with compensation out of the Public Monies, by Board of Agriculture, in Cattle Plague, Pleuro-pneumonia, Foot and Mouth Disease, Swine Fever, etc.

Work of the Sanitary Staff.—The Report of the Chief Inspector is highly satisfactory, shewing a large amount of work done by the Sanitary Department. No fewer than 45079 visits have been paid by the Inspectors, including 13559 house to house inspections, 7632 inspections in connection with contagious diseases, and 1145 visits to workshops and bakehouses. The workshops have been inspected and their various rooms measured as to cubic capacity—a new and somewhat arduous duty transferred to the Sanitary Authority from the Factory Inspectors. Indeed the subject of Workshops (ventilation, etc.) is from a health point of view so important that I have treated of it somewhat in detail in a special Report (See Appendix).

The Inspectors have worked well; and though one Inspector has left, a new one has been appointed in his place, during the year.

The falling off in the numbers of house to house inspections is to be accounted for by the fact that special visits have been made, and special lengthy enquiries instituted, in regard to

(1) Every case of Typhoid Fever,

(2) Every case of Diphtheria,

(3) Every case of death from Epidemic (Infantile) Diarrhœa; whilst the work in connection with the smoke testing of drains has increased, due to the fact that the drains of all Tpyhoid or Diphtheria infected houses are now specially examined in addition to the ordinary drain testing that is part of an Inspector's routine work.

TABLE G.

Bodies received into Public Mortuary, Horsefair Street, during, 1894.

	Bodies Admitted.			No. of Post Mortems.			No. of In-quests.	No. of Cases of Drowning.	
	Male.	Female.	Total.	Male.	Female.	Total.		Male.	Female.
January	1	1	2	...	...	...	2	...	...
February	1	1	2	...	1	1	2	...	...
March	2	...	2	1	...	1	2	...	...
April	1	...	1	1	...	1	1	...	...
May	4	...	4	4	...	4	4	...	...
June	1	1	2	...	...	...	2	1	...
July	1	1	2	1	1	2	2	...	...
August	1	...	1	1	...	1	1	...	...
September......	4	1	5	1	1	2	5	1	...
October.........	1	...	1	...	...	...	1	1	...
November......	1	...	1	1	...	1	1	...	...
December	...	1	1	...	1	1	1	...	...
Totals	18	6	24	10	4	14	24	3	...

Of the 24 bodies admitted, 10 were infants (7 males and 3 females).

Chief Inspector's Report upon the Work of the Sanitary Department during 1894.

TO THE MEDICAL OFFICER OF HEALTH,

Sir,—I beg to submit my Fifth Annual Report of work done in the Sanitary Department during the year 1894. Particulars as to the nature and number of nuisances abated will be found in the appended tables.

I am, Sir, yours faithfully,

FRANCIS BRALEY, *Cert. San. Inst.*

February, 1895.

REPORT FOR 1894.

The drains belonging to 1272 houses, warehouses, &c., have been tested with smoke during the year, including all the houses where Typhoid Fever or Diphtheria has been certified to exist. This work has necessarily taken up a great deal of time, so that the numbers of ordinary inspections are somewhat less than last year.

167 houses where children have died from Diarrhœa have also been visited, the premises inspected and lengthy enquiries made and particulars entered on special sheets provided for the purpose by the Medical Officer of Health.

Verbal recommendations and informal orders get a lot of the work done in connection with the Sanitary Department; thus, during the year, 1250 formal Notices to abate nuisances were served as against 2697 informal ones. 234 Workshops (containing 500 workrooms) have been measured to ascertain their cubic capacities, and cards supplied for each workroom stating the number of people allowed to work therein at one time. The whole of the premises have been examined as to their sanitary condition, and where defects have been found Notices have been served on the owners to remedy the same (See Table G). The principal trades carried on in the workshops examined are bootmaking, dressmaking, tailoring, and hosiery.

Magistrates' Orders have been obtained to permanently close two wells, the water from which had been analysed and certified to be unfit for drinking purposes.

The number of Common Lodging Houses on the register is 29 (same as last year), of which seven are "Models" and contain 46 rooms, which are capable of accommodating 470 persons. The sanitary arrangements of these "Models" are good, the houses themselves well kept and extensively patronised, whilst the other Common Lodging Houses, though old buildings, have been put into as good sanitary order as their nature will permit. 873 day and 246 night visits have been made; but in only two instances were the bye-laws found to have been infringed (in each case the keeper being summoned before the Magistrates and fined 40s and costs).

2135 smoke observations were made during the year, and in two instances magisterial proceedings have been taken against the Principals and Stokers (in one case the former being fined 20s. and costs, and the stoker ordered to pay costs, and in the other fines of 10s. and 2s 6d. respectively imposed). 13 Notices have also been sent to various manufacturers for allowing black smoke to issue from their chimneys for longer than the allotted time (seven minutes).

Ashpits are gradually disappearing from the Borough and portable galvanized iron dust-bins taking their places. 2194 of these ash-bins have been supplied during 1894, making the number now in use 17000.

During the year, 47 samples of milk have been obtained for the purpose of analysis at the Railway Stations, and other places—

i.e., before the milk came into the possession of the retail dealers. Upon three occasions this milk was found to have been adulterated, and the defendants were summoned, and fined £3 3s., £2 and £1 respectively.

There are 105 registered Cowsheds in the Borough, and in these 571 cows are kept. These places are frequently visited by the Inspector and the cows themselves examined. In one case, one of these animals was found to be suffering from Tubercular Disease, was removed to the Knacker's yard, slaughtered, and afterwards burnt in a Destructor.

There are 12 public and 94 private Slaughter Houses in the Borough, and to these the Inspector (Mr. Coles) has made 7159 visits during the year. At the present time 4 of the private Slaughter-Houses are not being used. During the year, 2 tons 18 cwt. 2 qrs. weight of meat was condemned by the Inspector as being unfit for human food.

The Dairies, Milkshops and Bakehouses have been frequently visited, and where sanitary defects have been discovered, Notices have been served to remedy the same.

The number of Canal Boats on the register is 94 (same as last year). During the year, 171 boats found plying on the Canal have been visited by the Inspector (Mr. Bent) who reported infringements of the Canal Boats Acts and Regulations as follows:—Overcrowding 4, not marked or numbered 3, crossbeam used for sleeping purposes 1, cabins requiring painting 7, cabins not watertight 8, shut-up cupboards on both sides of crossbed 4, and mixing of sexes 2. In all these cases steps have been taken to have the defects remedied.

A total of 356 persons were found in the Canal Boats during the year, consisting of 108 children and 248 adults. The ages and sex of the children were as follows :—

Under 1.	1	2	3	4	5	6	7	8	9	10	11	12	13
M. F.	M. F	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
1 3	6 5	2 2	5 1	5 2	6 3	5 3	3 2	3 7	6 4	5 4	4 3	11 0	7 0
4	11	4	6	7	9	8	5	10	10	9	7	11	7

Of the total 356, 276 were males and 80 females.

The two men employed by the Sanitary Department in the disinfecting of houses, working the Asphyxiator Machine for the smoke testing of drains, &c., have in addition to their ordinary work made 609 visits to Courts, for the purpose of cleansing Closets and Urinals belonging thereto.

There are 32 Public Urinals, which are daily cleansed, and disinfected if necessary.

STATEMENT A.

Shewing the Work done by the Sanitary Staff during the Year 1894.

	Number of Visits.
House to House Inspections	13,559
Special Inspections and Investigations of Complaints	9,105
Re-inspections to ascertain the progress of Sanitary and Informal Orders	12,348
Visits in connection with Contagious Diseases	7,632
Visits to Common Lodging Houses { Day 873 Night 246 }	1119
Visits to Bakehouses	571
Visits to Canal Boats	171
Visits to Workshops	574
	45,079
Samples of Food, etc., purchased for Analysis under the Adulteration Acts	400
Samples of Well Water Submitted for Analysis	19
Observations for the purpose of Smoke Prevention	2135
Stacks reported for Smoke Nuisance	20
Houses Disinfected by the Sanitary Staff	1077
Swine reported to Medical Officer of Health	338
Filthy Houses ditto ditto ditto	193
Delapidated Houses ditto ditto	89
Prosecutions under the Public Health and Local Acts	8
Ditto ditto Food and Drugs Acts	15
Ditto ditto Margarine Act	14
Houses to which Smoke Test was applied	1248
Public Buildings, Factories, etc., ditto	24
Houses to which Liquid Test was applied	284
Public Buildings, Factories, etc., ditto	4
Visits to Dairies and Milkshops	437
Letters (including Complaints of Nuisances) received	4679
Letters (including School and Sanitary Notices) sent out from the Offices	7524
Persons supplied with Disinfectants	1245

STATEMENT B.

During the year Formal and Informal Notices have been served to abate Nuisances as follows:—

	No. of Orders.
To abolish Manure-pits and Ash-pits	646
,, repair ditto ditto	15
,, erect new ditto ditto	3
,, provide Ash-tubs and Bins	2257
,, abolish Privies	284
,, ,, Privy Cesspools and Vaults	186
,, ,, Pail Closets	38
,, erect new Water Closets	294
,, repair, alter, or rebuild Closets	16
,, fix Closets Hoppers and Syphons	82
,, fix Flushing apparatus and lay on Water Supply	45
,, repair ditto	60
,, alter and ventilate Soil Pipes	46
,, lay New Drains	13
,, relay or repair defective drains	287
,, clear choked drains	370
,, repair Plastering	97
,, cleanse or repair Cisterns	125
,, fix lead or iron Sink Wastes	329
,, fix Traps or Gully Gratings	615
,, reset Gullies or provide new Gratings	283
,, erect, alter, screen, or repair Urinals	95
,, repair, re-hang, or provide new door for Closets and Dwellings	30
,, repair, renew, and make good Spouting	94

STATEMENT B.—*(continued,)*

	No. of Orders.
To cleanse and limewash Closets and Passages ...	113
,, pave Yards and Passages, or repair Paving ...	406
,, provide new, or relay and repair, Floors ...	97
,, repair Roofs	224
,, cleanse and limewash Houses	390
,, cleanse and limewash Houses after Infectious Diseases	411
,, remove Manure and offensive matter ...	26
,, alter Chimneys and Miscellaneous	43
,, repair Walls	34
,, alter or repair Rain Water Down Pipes ...	61
,, stop up or disconnect Cellar Drains	50
,, fix 4-in. Ventilation Pipes	108
,, reduce No. of persons occupying Houses ...	16
Total	8289

* The 8289 defects ordered to be remedied were contained in 3947 Notices, and of these 1250 were formal and 2697 informal orders.

STATEMENT C.

Shewing the number of Offensive Trades carried on, and Registered and Licensed Premises within the Borough requiring the constant attention of the Inspector.

Description of Trade.	No.
Slaughter-Houses	106
Tripe Houses	32
Common Lodging Houses	29
Bakehouses	198
Cow-Sheds	106
Milk Shops and Dairies	207
Tallow Melters	2
Chemical Works	3
Fellmongers	2
Bone Boilers	2
Soap Boilers	3
Knacker's Yard	1

STATEMENT D.

Shewing the number of Visits made by the Inspector of Meat, and the quantity of Meat, etc., condemned during the Year 1894.

No. of visits to Slaughter-Houses, Shops, and Cow-sheds, etc.	9734
No. of visits to Cattle Market	277

Meat, etc., Condemned and Destroyed.

	Tons.	Cwts.	Qrs.	Lbs.
Meat	2	18	2	0
Fish	24	5	1	17
Fruit	0	13	3	10

Rabbits	121 head
Ptarmigans	37 ,,
Oranges	3360
Eggs...	1200

STATEMENT E.

Shewing the Localities of Sewer Gas Escapes.

Into Breakfast Rooms, Sitting Rooms, and Dining Rooms	12
,, Houses from rat-holes	6
,, Kitchens and Sculleries	17
,, Basement Kitchens and Cellars	47
,, Lobbies and other parts of Houses	1
,, Internal Water Closets	6
,, External Water Closets	90
,, Yards, from around badly set gullies, defective drains, etc.	194
From External and unventilated Soil Pipes ...	17
,, Head and joints of downright Rain Water Pipes	70
,, Untrapped Rain Water Cisterns	12
,, Gullies in Stables	7
	479
And in connection with Houses in which Infectious Diseases have arisen	151
Total	630

STATEMENT F.

In connection with Infectious Diseases Inspection, the following defects were found, either in the houses referred to in the certificates or in the houses, closets, etc., in the same yard.

Defective and foul Ash-pits	75
,, and dilapidated Closets	10
,, and choked Drains	113
,, and unventilated Soil Pipes	5
,, Urinal, Bath and Lavatory Wastes ...	9
,, Paving and surface Channels	40
,, Untrapped or badly set Gullies to Sink and Yard Drains	177
,, Cellar Drains (direct to Sewers) ...	9
,, Water Closet Hoppers and Flushing Apparatus	25
,, Spouting	5
Foul Brick and defective Shafts to Sinks ...	36
Foul and defective Rain Water Cisterns	23
Dilapidated and Damp Houses and Workshops ...	26
Filthy Urinals, Closets and Passages	9
Filthy Houses	35
Pail Closets in unsuitable positions	13
Foul Privies and Cesspools	32
Escapes of Sewer Gas into:	
External Closets	45
Living Rooms and Scullery	4
Yards, from defective Drains, badly set Gullies, or Rain Water Pipes connected direct with the Sewers or Drains...	102
	793

STATEMENT G.

In connection with the Inspection of Workshops, the following Sanitary defects have been found, and Formal and Informal Notices served.

	No. of Orders.
To abolish Manure-pits and Ash-pits	10
„ provide Ash-tubs or Bins	21
„ abolish Privies	2
„ „ Privy, Cesspools or Vaults	2
„ „ Pail Closets	4
„ erect new Water Closets	29
„ repair, alter, or rebuild Closets	3
„ fix Closet Hoppers and Syphons	4
„ repair Flushing apparatus, and lay on Water Supply...	9
„ alter and ventilate Soil Pipes	4
„ relay or repair defective drains	14
„ clear choked drains	3
„ cleanse or repair Cisterns	2
„ fix lead or iron Sink Wastes	3
„ fix Traps or Gully Gratings	16
„ erect, alter, screen, or repair Urinals	34
„ repair, re-hang, or provide new doors for Closets and Dwellings	2
„ repair, renew, and make good Spouting and Rain Water Pipes	7
„ cleanse and limewash Closets and Passages ...	3
„ pave Yards and Passages. or repair Floors ...	10
„ provide new, or relay and repair, Floors ...	19
„ repair roofs	12
„ cleanse and limewash Workshops	62
„ repair Walls	2
„ repair Staircases	5
„ fix 4-in. Ventilation Pipes	19
„ provide light and ventilation	6
Total	307

SUMMARY OF VITAL AND MORTAL STATISTICS, &c., FOR 1894.

Area of Borough.—8586 acres (Census 1891), divided into 16 Wards. The newly-added portion of 5504 acres is sparsely populated, excepting in Belgrave, New Humberstone, Evington, and Clarendon Park districts.

Population.—189,136 (the Registrar-General's estimate to the middle of 1894).

Density.—22·02 persons per acre.

Inhabited Houses.—38818.

Rateable Value.—£683,556 17s. 1d.

Marriages.—1564, *i.e.*, 16·5 per 1000.

Births.—5995, *i.e.*, 31·6 per 1000.

Vaccinations.—133, of which 104 were performed by private practioners, and 29 by public vaccinators.

Deaths.—2730, being 14·4 per 1000.

Infantile Mortality.—971 under 1 year, or 161·9 per 1000 births.

Zymotic.—Death-rate, 1·9 per 1000.

Increase of Population.—4589, but the natural increase, *i.e.*, excess of births over deaths, was 3265.

PART II.

VITAL AND MORTAL STATISTICS.

Population and Area.—The Borough of Leicester contains 8586 acres, and an estimated population (to the middle of 1894) of 189136. The total increase of the population of the Borough (as estimated) is therefore 4589. The "natural increment"—*i.e.*, the excess of births over deaths—is only 3265, so that we must assume an influx of 1324 in excess of those who left the Borough during the year 1894.

Inhabited Houses and Rateable Value—The number of inhabited houses at the end of the year was 38818, shewing an increase of 923 over the previous year. The rateable value of the Borough on November 1st, 1894, was £683,556 17s. 1d., an increase of £14918 15s. 3d. on the previous year.

Marriages.—The number of marriages registered was 1564, giving a rate of 16·5 per 1000. This is a higher rate than last year.

Births.—The total number of births registered was 5995, giving a rate of 31·6 per 1000 of the population. Of these 5995, 3001 were boys and 2994 girls.

Vaccinations.—From returns supplied by the Vaccination Officer, the total number of primary vaccinations *registered* during 1894 was 133, as compared with 249 during 1893. Of these 133, 104 were performed by private practitioners and 29 by public vaccinators. Of the 5995 births registered during 1894, 75 have been vaccinated, whilst none have been returned as insusceptible to vaccination or as unfit.

TABLE

Of Primary Vaccinations performed in Leicester during the last ten years.

	PRIMARY VACCINATIONS.		
Year.	Public.	Private.	Total.
1885	979	863	1842
1886	561	561	1122
1887	188	286	474
1888	80	234	314
1889	31	141	172
1890	12	119	131
1891	6	86	92
1892	12	121	133
1893	44	205	249
1894	29	104	133

N.B.—These are, of course, the *registered* vaccinations. As the Vaccination Laws are a dead letter practically in Leicester, it is clear that parents may have their children vaccinated without troubling to send in a certificate to the Vaccination Officer. Medical Practitioners in the Town have assured me of the truth of this statement.

The numbers opposite the last three years refer to the New Borough as extended by the Leicester Extension Act, 1891.

Deaths and Annual Death-Rates.—The locally-corrected [*] number of Deaths for the year is 2730, giving a death-rate of 14·4 per 1000, as compared with 19·6 per 1000 last year. This is an exceptionally low death-rate, the lowest the Borough has ever experienced. The death-rate in England and Wales is 16·6, whilst from Table III it will be seen that Leicester ranks second amongst the 33 Great Towns of England and Wales, Croydon only having a smaller death-rate, viz.: 13·2 per 1000, though Liverpool registers one as high as 23·8 per 1000. London has a death-rate of 17·8 per 1000, and the general death-rate for the 33 Great Towns of England and Wales is 18·1 per 1000.

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[*] *i.e.*, after the distribution of the Public Institution Deaths.

In so far as a death-rate may be looked upon as an index of the Sanitary State of a Town, the Mortality Statistics for Leicester for the year 1894 are highly satisfactory, for even allowing sex- and age-corrections. it will be found that Leicester ranks first amongst the manufacturing (and even watering and sea-side) places of England and Wales—at least amongst those tabulated by the Registrar-General. Not only is 14·4 per 1000 the lowest death-rate, but 1·9 per 1000 is the lowest Zymotic death-rate, recorded in the Annals of the Borough (See Table XIV).

TABLE I.

Shewing the Population, Inhabited Houses, Marriages, Births, and Deaths for the year 1894, and ten years preceding.

The Year.	Estimated Population	No of Inhabited Houses.	Marriages.	Registered Births.	Corrected number of Deaths.			Deaths in Public Institutions.
					Total all Ages.	Under one year.	Under five years.	
1884	132,773	25,937	1152	4851	2937	1133	1615	
1885	136,147	26.794	1114	4682	2641	907	1315	
1886	139,606	26.934	1222	4858	2738	1052	1383	265
1887	143,153	27,558	1169	4689	2722	1011	1407	306
1888	146,790	28,417	1138	4787	2640	980	1331	320
1889	150,520	29,407	1211	4789	2513	1004	1276	270
1890	154,344	30,175	1276	4699	2799	958	1263	271
1891	177,353	29,288	1366	4790	3026	1039	1533	230
1892	180,066	37,095	1509	5816	3250	1150	1658	393
1893	184,547	37,895	1458	6006	3627	1324	1768	450
1894	**189,136**	**38,818**	**1564**	**5995**	**2730**	**971**	**1301**	**383**

NOTE *a*.—Population in censal year, 1891, was 174,624 (extended Borough).
b.—Number of inhabited houses at census, 35,705 (extended Borough).

TABLE II.

Shewing the Annual Birth-and Death-Rates of Children, and proportion of Deaths in Public Institutions, in a Thousand Deaths, for the year 1894, and ten years preceding

In Year.	Birth-rate per 1000 of the Population.	Death-rate per 1000 of the Population.	Deaths of Children under one year per 1000 of the Registered Births.	Deaths of Children under one year per 1000 of Total Deaths.	Deaths of Children under five years per 1000 of Total Deaths.	Deaths in Public Institutions per 1000 of Total Deaths.
1884	36·53	22·12	233·5	381·6	543·9	
1885	34·38	19·39	193·5	343·4	513·8	
1886	34·80	19·61	216·5	384·2	505·1	96·7
1887	32·75	19·01	215·8	371·7	516·9	112·4
1888	32·61	17·98	204·7	371·2	505·7	121·2
1889	31·81	16·68	209·6	399·5	507·7	107·4
1890	30·43	17·79	203·7	342·2	451·2	96·7
1891	33·58	21·21	214·5	346·3	511·1	95·3
1892	32·2	18·04	197·7	353·8	510·1	120·9
1893	32·5	19·6	220·4	365·04	487·4	124·06
1894	**31·6**	**14·4**	**161·9**	**355·6**	**476·5**	**140·2**

TABLE III.

Death-rate of the large English Towns during each of the past Six Years.

	1889.	1890.	1891.	1892.	1893.	1894.
28 large Towns	**19·3**	**21·3**	**22·5**	...	...	...
33 ,, ,,	...	...	...	**20·7**	**21·6**	**18·1**
London	17·4	20·3	21·4	20·6	21·3	17·8
Brighton	15·1	17·8	18·2	19·2	18·4	16·4
Portsmouth	18·1	19·6	19·0	18·5	18·2	15·2
Norwich	18·4	21·1	19·3	20·0	19·3	18·7
Plymouth	25·2	22·4	22·5	18.8	21·3	18·3
Bristol	17·6	19·2	20·9	19·5	18·9	17·3
Wolverhampton	20·6	21·8	24·2	21·5	23·3	20·7
Birmingham...	18·7	20·7	22·2	20·4	22·0	18·6
Leicester	**16·7**	**17·8**	**21·21**	**18·04**	**19·6**	**14·4**
Nottingham	17·0	16·5	19·9	18·7	18·5	17·2
Liverpool	21·6	23·6	27·0	24·7	36·0	23·8
Manchester	26·7	30·6	26·5	23·8	33·6	20·4
Salford	20·5	22·4	26·0	24·6	24·1	21·0
Oldham	20·4	21·2	25·7	22·0	21·0	18·6
Bradford	19·2	20·4	22·2	18·0	21·0	17·0
Leeds	22·1	22·6	22·0	19·8	22·0	17·9
Sheffield	20·9	24·9	23·9	20·8	22·3	17·8
Hull	20·3	19·2	21·0	19·6	21·8	17·4
Sunderland	22·9	22·7	25·0	20·9	22·5	20·8
Newcastle	25·2	25·9	23·8	19·7	21·0	18·3
Derby	16·4	18·5	19·1	18·3	18·2	15·0
Birkenhead	17·8	19·7	20·9	19·6	20·5	18·1
Bolton	22·0	25·8	21·9	22·8	24·1	18·8
Blackburn	25·5	23·5	25·8	21·7	23·3	17·9
Preston	30.0	27·4	27·3	24·1	24·4	20·8
Huddersfield	18·8	19·0	23·0	18·1	17·2	15·8
Halifax	21·6	22·5	22·8	19·5	17·4	16·5
Cardiff	19·5	20·8	22·1	18·8	19·7	16·2
West Ham	...	...	...	18·6	18·9	16·2
Croydon	...	...	...	15·8	16·3	13·2
Swansea	...	...	...	20·4	19·6	17·0
Burnley	...	..	...	20·4	21·9	18·7
Gateshead	...	..	...	18·9	19·3	17·7

In the above Table, Leicester's Death-rates have been *locally* corrected.

TABLE IV.

Infantile Mortality in the Large English Towns.
Deaths under one year per 1000 Births.

	1892.	1893.	1894.
Portsmouth	156	164	131
Bristol	147	141	150
Derby	173	156	123
Nottingham	167	170	174
Hull	166	206	142
Plymouth	137	169	169
London	155	164	143
Cardiff	163	179	141
Brighton	151	169	138
Birkenhead	168	196	143
Huddersfield	150	141	160
Bradford	155	197	145
Newcastle-upon-Tyne...	151	174	157
Halifax	160	173	135
Leeds	169	206	155
Sunderland	157	188	167
Wolverhampton ...	172	208	166
Bolton	185	199	162
Norwich	182	195	164
Oldham	177	187	161
Birmingham	166	198	163
Manchester	179	203	160
Blackburn	198	241	169
Sheffield	171	191	157
Liverpool	181	211	179
Salford	185	210	174
Leicester	**197**	**220**	**161·9**
Preston	216	269	217
Burnley	221	223	170

TABLE V.

Rates of Mortality of Children under one year of age, from chief Infantile Diseases, per 1000 Births.

	1892.		1893.		**1894.**	
	Total Deaths.	Rate per 1000 Births.	Total Deaths.	Rate per 1000 Births.	Total Deaths.	Rate per 1000 Births.
From all causes ...	1150	197·7	1324	220·4	971	161·9
Atrophy and Debility	247	42·4	273	45·4	170	28·3
Diarrhœa	191	32·8	340	56·6	153	25·5
Convulsions ...	141	24·2	133	22·1	119	19·8
Lung Diseases ...	192	33·01	137	22·8	163	27·1
Premature Births ...	148	25·4	167	27·8	137	22·8
Tubercular Diseases	32	5·5	32	5·3	54	9·0
Measles	27	4·6	17	2·8	106	17·6
Whooping Cough ...	24	4·1	55	9·1	12	2·0

TABLE VI.

Total Deaths, Death-rate, and percentage of Deaths, of the eight principal groups of Diseases.

	1893.			**1894.**		
	Total Deaths.	Rate per 1000 Living.	Relative Percentage of Total Deaths.	Total Deaths.	Rate per 1000 Living	Relative Percentage of Total Deaths.
Zymotic Diseases ...	801	4·3	22·08	402	2·1	14·7
Parasitic ,, ...	2	·01	·05	1	·005	·03
Dietic ,, ...	4	·02	·11	5	·02	·18
Constitutional ,, ...	570	3·08	15·7	458	2·4	16·7
Local ,, ...	1422	7·7	39·2	1253	6·6	45·8
Developmental ,, ...	696	3·7	19·1	508	2·6	18·6
Violence	83	·45	2·2	72	·3	2·6
Ill-defined	49	2·6	1·3	31	·1	1·1

TABLE VII.

Deaths at different Ages and Death-rates in the various Wards of the Borough during 1894.

Name of Ward.	All Ages.	Under 1 Year.	1 Year to 5.	5 Years to 60.	Over 60 Yrs.	Estimated Population.	Ward Mortality per 1000 Living.
1.—St. Martin's ...	71	22	8	26	15	?	*Death-rates not calculated owing to estimated Ward Populations being unknown until next Census.*
2.—Newton	241	102	36	60	43	?	
3.—St. Margaret's ...	226	94	34	59	39	?	
4.—Wyggeston ...	273	114	41	68	50	?	
5.—Latimer	261	99	53	77	32	?	
6.—Charnwood ...	119	38	17	44	20	?	
7.—Wycliffe	271	34	12	99	126	?	
8.—De Montfort ...	86	19	5	28	34	?	
9.—The Castle ...	199	62	14	83	40	?	
10.—Westcotes ...	178	56	25	52	45	?	
11.—The Abbey ...	101	38	12	39	12	?	
12.—Belgrave	144	58	16	40	30	?	
13.—West Humberstone	212	86	24	71	31	?	
14.—Spinney Hill ...	182	83	13	56	30	?	
15.—Knighton... ...	58	18	5	21	14	?	
16.—Aylestone... ...	108	48	15	38	7	?	
Totals	2730	971	330	861	568		

TABLE VIII.

Deaths in each of the Wards of the Borough from the chief Zymotic Diseases during 1894.

	Small-Pox.	Whooping Cough.	Measles.	Scarlet Fever.	Diphtheria.	Fever.	Diarrhœa.	Total.
1st Ward ... ... (St. Martin's)	0	0	3	1	0	2	5	11
2nd Ward ... ... (Newton)	0	3	8	5	0	2	22	40
3rd Ward ... ... (St. Margaret's)	0	1	12	3	0	4	18	38
4th Ward ... ... (Wyggeston)	0	0	20	4	0	3	32	59
5th Ward ... ... (Latimer)	0	2	18	5	3	7	15	50
6th Ward ... ... (Charnwood)	0	1	0	3	2	3	13	22
7th Ward ... ... (Wycliffe)	0	1	3	0	0	5	5	14
8th Ward ... ... (De Montfort)	0	0	2	0	0	0	4	6
9th Ward ... ... (The Castle)	0	0	4	0	0	0	13	17
10th Ward ... ... (Westcotes)	0	1	9	2	0	0	8	20
11th Ward ... ... (The Abbey)	0	0	6	0	1	0	10	17
12th Ward ... ... (Belgrave)	0	2	9	1	1	0	3	16
13th Ward ... ... (West Humberstone)	0	0	7	2	0	1	11	21
14th Ward ... ... (Spinney Hill)	0	1	2	2	1	0	5	11
15th Ward ... ... (Knighton)	0	0	2	0	0	0	0	2
16th Ward ... . (Aylestone)	0	0	1	2	4	0	12	19
Totals	0	12	106	30	12	27	176	363

TABLE IX.

Shewing the number of Deaths from the principal Zymotic Diseases in the Ten Years 1884-1893, and in the Year 1894.

	DISEASE.	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	Annual average of Ten Years 1884-93.	Proportion of Deaths to 1000 Deaths in Ten Years 1884-93.	Total Deaths in 1894.	Proportion of Deaths to 1000 Deaths in 1894.
	Small-Pox	0	0	0	0	0	0	0	0	6	15	2·1	0.7	0	0·0
	Measles	57	52	43	87	77	62	30	84	126	52	67·0	23·1	106	38 8
	Scarlet Fever	63	113	44	5	4	6	38	17	41	81	41·2	14·2	30	10·9
	Diphtheria	11	14	4	13	13	10	11	14	10	20	12·0	4·1	12	4·3
	Whooping Cough ...	66	52	27	55	86	26	16	136	52	112	62·8	21·7	12	4·3
Fevers	Typhus	0	0	0	0	0	0	0	0	0	0	0·0	0·0	0	0·0
	Enteric	16	36	19	31	32	22	24	29	17	47	27·3	9·4	27	9·8
	Simple continued	0	0	0	0	0	0	0	0	0	0	0·0	0·0	0	0·0
	Diarrhœa	344	186	256	247	148	121	218	204	214	399	233·7	80·8	176	64·4
	Totals	557	453	393	438	360	247	337	484	466	726	446·1	154·3	363	132·9

TABLE X.

Deaths from Scarlatina during each Lunar Month of the following Years.

Year.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.	Total.
1881	12	6	9	6	7	11	18	18	31	24	19	19	12	192
1882	6	12	5	2	2	2	2	2	3	9	11	7	18	71
1883	4	2	3	3	8	7	6	3	5	5	12	15	8	91
1884	8	12	5	2	7	5	2	3	4	2	3	5	5	63
1885	2	10	3	6	3	9	4	14	9	15	10	10	16	113
1886	9	11	2	4	2	0	0	1	3	2	2	4	4	44
1887	2	0	1	2	0	0	0	0	0	0	0	0	0	5
1888	1	0	0	0	0	1	0	1	1	0	0	0	0	4
1889	0	0	1	0	0	0	0	0	2	0	2	0	1	6
1890	1	4	1	4	2	3	4	2	5	0	6	5	1	38
1891	8	2	1	1	0	0	1	1	0	1	0	5	4	17
1892	2	2	1	1	4	1	3	3	1	4	8	7	4	41
1893	3	3	0	8	7	8	4	11	11	13	5	5	3	81
1894	**0**	**2**	**2**	**5**	**4**	**6**	**3**	**2**	**2**	**1**	**0**	**1**	**2**	**30**

TABLE XI.

Shewing Mortality and Ages of Persons suffering from Scarlet Fever.

	1893.			1894.		
	No. of Patients Notified.	Deaths.	Death-rate per cent.	No. of Patients Notified.	Deaths.	Death-rate per cent.
Under 1 year	18	0	0	17	0	0·0
1 to 2 years	51	11	21·5	22	5	22·7
2 to 3 ,, ...	120	7	5·8	45	5	11·1
3 to 4 ,, ...	142	10	7·04	95	7	7·3
4 to 5 ,, ...	220	10	4·5	93	3	3·2
5 to 6 ,, ...	253	6	2 3	96	2	2·08
6 to 7 ,, ...	241	4	1·6	104	3	2·8
7 to 8 ,, ...	234	9	3·8	104	4	3·8
8 to 9 ,, ...	201	5	2·4	83	0	0·0
9 to 10 ,, ...	168	2	1·1	63	0	0·0
Over 10 years	705	17	2·4	227	1	·44
Age not stated	38	0	0	0	0	0
Totals	2391	81	3·3	949	30	3·1

TABLE XII.

Shewing the Deaths at all ages during 1894, from certain groups of Diseases, and proportion to 1000 of population, and to 1000 Deaths from all causes, also the number of Deaths of Infants under one year of age, from other groups of Diseases, and proportion to 1000 Births, etc.

DIVISION I. All Ages.	Total Deaths.	Deaths per 1000 of Population at all Ages.	Deaths per 1000 of Total Deaths at all Ages.
1. Zymotic Diseases	402	2·1	147·2
2. Pulmonary or Respiratory Diseases (excluding Phthisis.)	474	2·5	173·6
3. Principal Tubercular Diseases ... (including Phthisis.)	311	1·6	113·9
DIVISION II. Infants under one year.	Total Deaths.	Deaths per 1000 of Births.	Deaths per 1000 of Total Deaths under one year.
4. Wasting Diseases ... ... (including Tabes Mesenterica.)	180	30·02	185·3
5. Convulsive Diseases	119	19·8	122·5

TABLE XIII.

Deaths from Zymotic Diseases (arranged quarterly so as to shew their seasonal mortality) during 1894.

	Small-Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhoid.	Influenza.
1st Quarter ...	0	52	9	1	3	7	5
2nd Quarter ...	0	52	14	3	3	5	2
3rd Quarter ...	0	2	5	2	3	11	0
4th Quarter ...	0	0	2	6	3	4	6

TABLE XIV.

LEICESTER BOROUGH

Shewing estimated Populations, Marriage-rates, Birth-rates, and Death-rates (general and Zymotic), per 1000 living, during the last 50 years.

Year.	Estimated Population.	Marriage-rate.	Birth-rate.	Death-rate.	Zymotic (death) rate.
1845	54,737	24·04	40·14	30·85	9·07
1846	55,707	21·00	39·72	29·48	8·11
1847	56,696	18·80	35·36	25·69	4·12
1848	57,705	20·86	34·71	25·77	5·87
1849	58,739	21·58	36·96	28·73	7·05
1850	59,788	24·04	37·45	23·64	4·13
1851	60,760	21·11	40·11	25·57	5·48
1852	61,477	22·96	38·83	28·84	8·42
1853	62,181	22·90	30·71	27·02	5·45
1854	62,903	20·40	39·06	25·11	6·65
1855	63,624	19·14	36·16	23·55	2·87
1856	64,366	20·02	37.32	21·16	3·10
1857	65,119	20·60	37·48	27·58	8·19
1858	65,885	19·24	34·54	28·76	8·07
1859	66,663	22·56	37·77	24·59	4·99
1860	67,456	19·80	38·05	20·47	1·27
1861	68,638	18·58	27·01	25·25	5·71
1862	70,986	21·30	38·37	23·38	3·01
1863	73,413	25·74	40·00	29·95	7·96
1864	75,922	25·68	41·01	26·96	5·41
1865	78,516	25·38	41·09	25·02	5·20
1866	81,197	24·94	42·02	23·33	3·37
1867	83,970	22·18	41·66	24·59	4·31

TABLE XIV.—Continued.

Year.	Estimated Population.	Marriage-rate.	Birth-rate.	Death-rate	Zymotic (death) rate.
1868	86,837	22·62	41·32	28·15	7·88
1869	89,804	21·12	41·87	25·60	5·10
1870	92,873	21·22	40·90	27·33	7·24
1871	95,823	23·06	41·55	26·07	5·83
1872	98,251	23·90	42·36	26.95	8·23
1873	100,741	24·00	44·14	23·83	5·05
1874	103,294	20·90	42.34	24·29	3·83
1875	105,913	22·36	40·31	27·28	6·56
1876	108,599	22·64	44·02	23·58	5·26
1877	111,355	31·24	42·68	23·48	3·21
1878	114,182	19·38	41·85	21.89	4·18
1879	117,083	19·48	40·11	22·64	3·06
1880	120,059	19·60	40·04	24·73	6·48
1881	123,146	18·66	38·26	21·55	4·45
1882	126,275	19·02	38·46	20·04	3·23
1883	129,483	18·64	37·26	19·18	2·56
1884	132,773	17·34	36·53	22·12	4·20
1885	136,147	16·36	34·39	19·39	3·32
1886	139,606	17·46	34·80	19·82	2·81
1887	143,153	16·60	32·79	19·10	3·05
1888	146,690	15·48	32·79	18·16	2·45
1889	150,520	16.88	31·83	15·63	2·30
1890	154,344	16·52	30·44	17·79	2·18
1891	177,353	19·16	33·61	21·22	3·39
1892	180,066	16·76	32·29	18·04	2·58
1893	184,547	15·80	32·54	19·65	3·93
1894	189,136	16·52	31·69	14·43	1·91

N.B.—The above figures are taken from the 4th Report of the Royal Vaccination Commission: they are the revised and corrected populations and rates. 1892-3-4 refer to extended Borough.

Infantile Mortality.—Of 2,730 Deaths, 971 were infants under one year of age, giving a proportion of 161·9 per 1,000 births. The chief causes of these deaths were Atrophy, Inanition, Debility, Diarrhœa, Premature Births, Convulsions, Bronchitis, and Pneumonia.

Illegitimacy and Uncertified Deaths.—There were 294 Illegitimate Births registered during 1894, and 78 Deaths of illegitimate infants. The total number of deaths under one year of age in 1894 was 971, and of these 8 % were returned as illegitimate (only 4 % of the total births being illegitimate). This greater mortality amongst illegitimate infants calls for special comment, and for some sort of special action. Thus, the Sanitary Committee might with advantage (as has been suggested elsewhere) keep a Register of the illegitimate children who are born in Leicester from year to year, so that particulars as to the causes of death, etc. might be entered therein from time to time, and action taken, if there were any suspicious circumstances connected therewith. Supervision during the first two or three years of life would be sufficient.* Of the total 93 deaths of illegitimates (all ages), 78 were under one year of age, and 11 between one and three years, whilst the causes of their deaths were as follows:—

I.—*Under 1 year of age*:—Convulsions 11, Diarrhœa 10, Bronchitis 10, Premature Births 8, Debility 8, Measles 4, Syphilis 4, Marasmus 3, Atrophy 3, Tuberculosis 4, other causes 13.

II.—*Between 1 and 3 years.*—Diseases of Lungs 6, Infectious Diseases 4, Dentition 1.

The following table is instructive:—

Deaths of legitimates under 1 year per 1000 Births of legitimate children = 156·6.

Deaths of illegitimates under 1 year per 1000 Births of illegitimate children = 265·3.

Uncertified Deaths = 86 = 3·1 % of total deaths.

Total Deaths 2730 { legitimate (uncertified) = 81 = 3·07% of total deaths (legitimate).
illegitimate (uncertified) = 5 = 5·3 % of total deaths (illegitimate).

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* Cp. Infants' Life Protection Act.

Thus, the death-rate of illegitimate infants is greater by 69·4 % than that of legitimate infants so that, judging by the statistics of the year 1894, it may be stated that in Leicester every child born out of wedlock runs 1½ times as much chance of death before the end of its first year of life as a child born in marriage. Impaired vitality, neglect (? criminal at times), constitutional taint, etc., probably account for this difference.

Total Deaths under 5 years 1301
legitimate (uncertified)=59=4·8% of total deaths under 5 (legitimate).
illegitimate (uncertified)=5=5·5% of total deaths under 5 (illegitimate).

Thus, more illegitimates (of all ages or under 5 years) die without being medically certified than legitimates (of the same age periods).

Closely associated then with the subject of illegitimacy, is the percentage of uncertified deaths.

The following table gives statistics of uncertified deaths and inquests held during 10 years, 1885–94 (expressed in percentages of total deaths).

Year.	Uncertified Deaths.	Inquests held.
1885	1·9	9·4
1886	2·2	9·8
1887	2·5 average 2·2	11·1 average 10·0
1888	2·0	11·2
1889	2·1	9·8
1890	2·1 average 2·0	8·4 average 9·8
1891	2·4	6·1
1892	2·8	5·8
1893	3·6 average 2·9	5·7 average 5.8
1894	3.1	6·9

It will be noticed that the percentage of uncertified deaths has been increasing, and that of inquests held apparently *proportionately* decreasing, during the last 10 years—a state of affairs unsatisfactory. The proper certification of all deaths should be enforced by law, with post mortem examinations in all cases which are not certified by attendant medical practitioners. In other words, official (medical) certifiers are required, certification by non-medical coroners being of necessity at times unsatisfactory.

Inquests.

There were 188 Inquests held by the Coroner, giving a per centage of 6·9 for the deaths (out of the total number) inquired into (see table).

Details as to Inquests.

	Legitimate.	Illegitimate.	Total.
Under 1 year ...	44	6	50
1 to 5	27	2	29
4 to 10	4	0	4
10 to 16	6	0	6
Over 16	99	0	99
	180	8	188

Class I.—Zymotic Diseases.

The chief Zymotic Diseases are dealt with in Part I. In addition there have been registered 13 deaths from Syphilis and three from other Venereal Diseases. Leicester's Zymotic* Death-rate is for the year 1894, 1·9 per 1000, as compared with 3·9 per 1000 for 1893, of the population. This is the smallest Zymotic Death-rate registered in the Annals of Leicester.

Classes II and III.—Parasitic and Dietic Diseases.

Five deaths attributed to Intemperance and one from Thrush under these classes.

Class IV.—Constitutional Diseases.

Of the total 458 deaths under this class, 98 were due to Cancer, 207 to Phthisis, and 90 to Tubercular Meningitis and other forms of Tuberculosis.

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i.e., The seven chief Zymotic diseases—Small-Pox, Measles, Scarlet Fever, Typhoip Fever, Whooping Cough, Diphtheria and Diarrhœa.

Class V.—Local Diseases.

1.—Diseases of the Nervous System caused 305 deaths, including 144 from Convulsions, 127 from Ayoplexy and Paralysis, and 12 from Epilepsy.

2.—Heart Disease caused 211 deaths and diseases of the Blood Vessels 19.

3.—The diseases of the Respiratory Organs caused 474 deaths. Bronchitis caused 300, and Pneumonia 139, deaths.

4.—Diseases of the Digestive Organs numbered 135—52 being due to Enteritis and Peritonitis, 26 to Diseases of the Stomach, and 32 to Liver Diseases.

5.—Diseases of the Urinary Organs caused 67 deaths, 39 from Diseases of the Kidneys and 4 from Stone.

6.—Diseases of the Reproductive System, Integumentary System, Bones, Joints, Organs of Special Sense and Lymphatic System, etc., caused 42 deaths.

Class VI.—Developmental Diseases.

A total of 508 deaths, consisting of 137 from Premature Births, 163 from Old Age, 177 from Atrophy, Inanition and Debility, 31 from Atelectasis, Teething and Congenital Malformations. Of the total 508, 333 were under 1 year of age.

Class VII.—Deaths from Violence.

72 deaths in all, 14 from Fractures and Contusions, 7 from Burns and Scalds, 20 from Suffocation (17 under 1 year of age) and 21 from Suicide.

Class VIII.—Ill-defined and Non-specified Causes.

21 from Natural Causes, and 10 from Dropsy, Abscess, Tumour, Hœmorrhage, and Mortification.

PART III.

FEVER HOSPITAL.

Report for the Year ending Dec. 31st, 1894.

The last three cases of Small-Pox treated in the old Small-Pox Ward near to the Main Building were Annie M., Margaret Y., and Hilda F., who were all discharged on February 1st, 1894. Since then this Ward has been disinfected and cleansed, whilst the Scarlet Fever Wards proper, after thorough disinfection and remaining empty for three months, were again opened for the reception of Scarlet Fever patients on February 13th, 1894. 423 patients have been admitted during the past year, consisting of 413 Scarlet Fever, 1 Chicken-Pox, 1 Whooping Cough, and 8 Small-Pox (the Small-Pox patients being treated in the small *temporary* wards newly built in a field adjoining the present Hospital site and as far as possible from the Main Building). One quarantine case (Small-Pox) was taken to the Hospital to be thoroughly disinfected.

The Committee decided that only the worst cases of Scarlet Fever (*i.e.*, most severe, destitute, or such as could not possibly be isolated at home) were to be taken to the Hospital for treatment, so that the Wards were at no time crowded, but, on the contrary, a most liberal amount of cubic space has been at the disposal of each patient. This fact has undoubtedly contributed to the lessening of the Hospital death rate, which registers 2·17 % only of the Scarlet Fever patients treated. This is cause for congratulation when we remember that the mortality rate for

Scarlet Fever patients treated in the Town was 3·9, *i.e.*, nearly 80 % more.

During the year the Eucalyptus oil treatment for Scarlet Fever has been introduced into the Hospital—130 patients having been so treated. This Encalyptus oil treatment consists in rubbing the patients all over with the antiseptic oil (spraying it into the throat and nose and round the patient generally); and the plan I have adopted has been to choose only those cases in which the rash was well developed at the date of admission, and to rub them three times a day for the first three days, followed with a daily rubbing (after a hot bath) for the next seven days. Complications, when they arose, were treated on the usual lines. Considering the comparatively few cases that have yet been treated in this way, too hasty conclusions must not be drawn, so that I will content myself with mentioning the facts—contrasting in this way the two treatments, viz.: the Eucalyptus *versus* the ordinary.

In making the above comparisons I have been careful to classify only patients who have been admitted into the Hospital under as nearly as possible similar conditions, *i.e.*, as to severity of attack, constitution, and age, and who were on admission equally advanced in the disease. In other words, only patients have been classified who had the rash well developed at the date of admission and who therefore were undoubtedly suffering from attacks of Scarlet Fever; doubtful cases (*i.e.*, no rash and no desquamation) and cases that were peeling on admission have not been included. In this way I have compared together 120 treated with Eucalyptus and 161 treated ordinarily. The remaining cases (10 Eucalyptus and 86 others) were in my opinion either not cases of Scarlet Fever or were desquamating on admission so that they would not have been suitable patients for comparison.

A. Eucalyptus Treatment.

120 cases and 2 deaths=1·6 %

Length of stay (in days) in Hospital,

non-fatal cases	34·4
fatal cases	8·5

Length of interval (in days) between admission, *i.e.*, commencement of the treatment, and normal temperature, *i.e.*, cessation of all fever ... ... 11·4

Percentage of complications and sequelœ 20

serious ... ... 79·3 %
trivial ... ... 20·7 %

Details as to complications and sequelœ :—

Serious :—Rhinorrhœa 2, Otitis 9, Phagedœna Pharyngis 2, Acute Rheumatism 2, Abscesses 4, Albuminuria 2, Pneumonia 1, Acute Tuberculosis 1.

Trivial :—Tonsillitis 2, Reinfection 2, Pityriasis 1, Urticaria 1.

Percentage of "return" cases = 3·9, *i.e.*, of all those treated with Eucalyptus and discharged from Hospital during 1894 (calculated on special cases treated = 4·2 %).

B. **Ordinary Treatment.**

161 cases and seven deaths = 4·3 %

Length of stay (in days) in Hospital,

non-fatal cases ... ... 42·7
fatal cases ... ... 13·4

Length of interval (in days) between admission, *i.e.*, commencement of the treatment, and normal temperature, *i.e.*, cessation of all fever ... ... 10·3

Percentage of complications ... ... 27·3

serious ... ... 83 %
trivial ... ... 17 %

Details as to complications :—

Serious :—Rhinorrhœa 1, Otitis 7, Phagedœna Pharyngis 4, Acute Rheumatism 4, Abscesses 1, Albuminuria 11, Urœmic Convulsions 3, Pleuro-Pneumonia and Broncho-Pneumonia 4, Acute Tuberculosis 2, Hœmaturia 1.

Trivial :—Tonsillitis 2, Reinfection 3, Urticaria 2, Epistaxis 1, Erysipelas 1.

Percentage of "return" cases = 5·0, *i.e.*, of all those treated with ordinary treatment and discharged from Hospital during 1894 (calculated on special cases treated = 6·4 %).

The Eucalyptus oil used has been Tucker's "Oleusaban" Eucalyptus disinfectant "A," which is stated to be a mixture of thymol, camphoraceous, and other aromatic antiseptics mixed with the essential oil of Eucalyptus Globulus.

From the above figures we note in favour of the Eucalyptus :—a lower death-rate, shorter stay in Hospital, slightly fewer complications of a serious nature, and fewer "return cases ; whilst it is only fair to state that the cases were as a rule kept in Hospital until all signs of peeling had gone, so that the process of desquamation is certainly hastened. It has been suggested that after ten days treatment, patients may mix with others regardless of any peeling skin which may remain, and which is stated to be non-infectious ; and if this is so (and statistics alone can settle the question) there will be an enormous financial saving in the treatment of Scarlet Fever cases. Of the so-called "return" cases, there have been 17 in Leicester during the year—5 in connection with Eucalyptus-treated cases and 12 others.

"Return" cases are those which *apparently* result from the return of hospital cases to their homes. Allowing three weeks as a fair interval within which such cases may occur, there have been 17 during the year out of a total of 368 patients sent home, *i.e.*, 4·6 %

Of the 413 cases admitted as Scarlet Fever, 43 were desquamating at the time of admission, 26 had no rash on admission but desquamated shortly afterwards, while 44 never shewed signs of Scarlet Fever (*i.e.*, rash or peeling).*

There has not been a single case of post Scarlatinal Diphtheria in the Hospital during the year—a fact to be attributed to the absence of crowding, as shewn by the very liberal amount of floor space and cubic space each patient treated has been enabled to obtain.

As to the cost of the Eucalyptus treatment. 7½ gallons of the oil have been used at a cost of £12 6s. 4d. for the whole year, *i.e.*, to treat 130 patients. This gives a cost of nearly 2/- each patient, and as the average number of rubbings for each patient is 16, the treatment has cost on an average 1½d. each application

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*In connection with these 113 cases there were the following complications: Albuminuria 5, Ulcerative Stomatitis 1, Varicella 1, Skin Diseases 5.

(about one ounce being used at one time). In this connection the shorter stay in Hospital must be remembered, and the fact that the average weekly cost per Scarlet Fever patient for the last nine years is 16/2½. With an average stay in Hospital of 42.7 days for patients treated ordinarily as compared with 34·4 for those treated with Eucalyptus, there is a saving of one week in the case of the latter with the consequent saving also of the Hospital maintenance charges of 16/2½ per head. The cost of the oil being 2/-, there is still a balance of 14/2½ in favour of each patient treated with Eucalyptus—a balance which would naturally be augmented if we find, as stated, that patients so treated can, with safety to themselves and others, be sent to their houses at the end of ten days.

List of patients who died in the Scarlet Fever Hospital, with causes of death :—

Days in Hospital.			
13	Agnes Susannah Byrne	3 years	scarlatina anginosa
10	Alice Davenport	7 ,,	,, ,,
1	Edith Downer	4 ,,	,, ,,
4	Margaret Embrey	5 ,,	,, ,,
14	Jane Sansome	6 ,,	S.F.—acute nephritis
18	George Smith	2 ,,	S.F.—phagedœna
5	Samuel Ward	2 ,,	S.F.—meningitis acuta
18	John Henry Toach	6 ,,	S.F.—acute nephritis
7	James Cave	1 ,,	Pneumonia following pertussis
28	Henry Grant Burnett Hatchman	6 ,,	S.F.—acute nephritis

TABLE A.

General Summary.

Remaining in Hospital, December 31st, 1893 ...	9
Admitted during the year 1894	424
Total under treatment	433
Discharged	386
Died	10
Remaining in Hospital, December 31st, 1894 ...	37

TABLE B.

Shewing number of each Disease under Treatment, with the Death-rate thereof, in 1894.

	In Hospital, Dec. 31, 1893.	Admitted.	Dis-charged.	Died.	Mortality per cent.	Remaining in Hospital Dec. 31st, 1894.
Small-Pox	9	8	16	0	0	1
Quarantine	0	1	1	0	0	0
Scarlet Fever ...	0	412 1	368	9	2·17	36
Doubtful and diseases other than Scarlet Fever or Small-Pox	0	2*	1	1	50	0
Totals ...	9	424	386	10	2·3	37

* These were cases of Chicken-Pox and Whooping Cough respectively.

TABLE C.

Showing Monthly Admissions of, and Deaths from, Small-Pox and Scarlet Fever in 1894.

Month.	Small-Pox.		Scarlet Fever.	
	Admissions.	Deaths.	Admissions.	Deaths.
January	2	0	0	0
February	1	0	22	0
March	0	0	32	3
April	0	0	44	1
May	1	0	40	2
June	2	0	44	1
July	0	0	40	0
August	0	0	23	1
September	1	0	58	0
October	0	0	55	0
November	0	0	26	1
December	1	0	29	0
Totals ...	8	0	413	9

TABLE D.

Ages of Scarlet Fever Patients Admitted to Hospital.

Age.	No. Admitted.	Deaths.
Under 1 year	1	0
From 1 to 2 years	5	0
,, 2 to 3 ,,	19	2
,, 3 to 4 ,,	41	1
,, 4 to 5 ,,	38	1
,, 5 to 6 ,,	46	1
,, 6 to 7 ,,	43	3
,, 7 to 8 ,,	44	1
,, 8 to 9 ,,	36	0
,, 9 to 10 ,,	33	0
,, 10 to 15 ,,	62	0
Over 15 years	45	0
Total	413	9

Ages of Small-Pox Patients Admitted to Hospital.

Age.	No. Admitted.	Deaths.
Under 1 year	0	0
From 1 to 2 years	0	0
,, 2 to 3 ,,	0	0
,, 3 to 4 ,,	0	0
,, 4 to 5 ,,	0	0
,, 5 to 6 ,,	1	0
,, 6 to 7 ,,	0	0
,, 7 to 8 ,,	0	0
,, 8 to 9 ,,	0	0
,, 9 to 10 ,,	0	0
,, 10 to 25 ,,	2	0
,, 25 to 35 ,,	3	0
Over 35 years	2	0
Total	8	0

Particulars as to the Small-Pox Cases.

At the end of the year 1893, the Small-Pox epidemic began to decline, and on January 1st, 1894, there were only 9 cases of Small-Pox under treatment in the Wards of the Hospital (8 having been admitted during the month of December, 1893). During the year 1894, 8 cases have been admitted, the details of which are as follows :—

Lizzie G., of Newport Street, 21 years of age, sickened on December 31st, 1893, the rash (about a dozen spots) appearing January 2nd, 1894, and aborting after a few days. She had been well vaccinated (four marks on left arm), and had a very mild, aborted, attack of Small-Pox. Her father is the assistant porter at the Hospital, and may have carried infection home to her, though in this connection it is interesting to note that he himself had an attack of Small-Pox 14 months previously, and did not convey infection to his daughter during the whole of the intervening period *i.e.*, during the height of the Small-Pox epidemic.

George R., of Wand Street, 13 years of age, sickened January 4th, 1894, and the rash (about 30 spots) which appeared January 6th, aborted after a few days. He had been well vaccinated (four marks on the left), and had a very mild, aborted, attack of Small-Pox. He caught the disease from his brother,* who was admitted into the Small-Pox Ward, December 26th, 1893.

Matilda M., of Regent Road, 33 years of age, sickened February 8th, 1894, and the rash, though cohœrent in character when it appeared on February 10th, aborted. She had been well vaccinated (five marks on the left arm), and had a mild, aborted, attack of Small-Pox. She had recently come from Rotterdam, where she had been staying with some friends on the date when she contracted the disease, *i.e.*, January 25th or 27th.

Charles E., of Berners Street, 48 years of age, sickened April 30th, 1894, with what turned out to be a severe confluent attack of Small-Pox. His rash appeared May 2nd, was confluent, and maturated with delirium and high secondary fever (104°F) on May 7th. He caught the disease, probably, in Birmingham, where he visited on April 16th, *i.e.*, fourteen days before he sickened, and where a Small-Pox epidemic was raging at that time. Leicester had then been free from Small-Pox for two months.

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* See Annual Report, 1893, page 203.

Though Charles E. had a severe confluent attack of Small-Pox he recovered. He had been vaccinated (three marks on the right).

John B., 25 years of age, was a tramp who sickened at the Workhouse on May 31st, 1894. His rash appeared June 2nd, and aborted in a few days. He had been vaccinated (two marks on the left), and had a mild, aborted, attack of the disease. He had tramped from Manchester, having left there on June 22nd owing to an out-break of Small-Pox in the common lodging-house where he had been stopping (the Rest, Miller's Lane, Factory Yard). His spots were cohœrent.

John S., 40 years of age, was admitted from a house in the County. He contracted the disease about June 5th (on which date he was at Dewsbury), and sickened June 19th, his rash appearing June 22nd, and aborting in a few days. He had been well-vaccinated (four marks on the right), and had a very mild, aborted, attack, though the rash was cohœrent. Though John S. was accustomed to go into Leicester every day, there is no reason for supposing that he contracted the disease there.

Tom P., 5 years of age, was found to be suffering from Small-Pox at the Union Workhouse on September 26th, 1894. He sickened September 24th, and the spots, which appeared September 26th, maturated on September 30th. He had not been vaccinated, and had a severe attack of semi-confluent Small-Pox. He appears to have caught the disease about September 10th when he was at the Union Workhouse, Birmingham,* having been there for about four months. A great deal of discussion arose as to the state of his vaccination as it was thought strange that a young child should come from Birmingham Workhouse unvaccinated during a Small-Pox epidemic; but from *direct* enquiries that I have made, I am in a position to state that he had not been vaccinated at all. Of the other children (four in number), three had been vaccinated whilst in the Birmingham Workhouse; and of these three, none sickened.

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* Tom P. was at the Boys' School, Workhouse, Birmingham, from August 30th to September 20th, and this Boys' School is within 150 yards of the City Small-Pox Hospital. So I am informed.

Charles B., 26 years of age, of Parry Street, Humberstone Road, was found to be suffering from confluent Small-Pox on Dec. 18th, 1894. The spots were maturated, so that the disease was at least six days old. From enquiries, I found that the patient sickened on December 10th, and his rash appeared on December 13th, maturated on December 17th, and aborted in a few days, normal temperature being reached on December 26th. The attack was confluent, mild and aborted, and the patient shewed one large vaccination mark on left arm. The source of the disease is interesting, three other inmates of this house having had mild attacks of the same disease. The first to fall ill was James D. on November 27th. He was unattended by a medical man (his attack being mild), but he infected his wife (E. D.) and brother (Edwin D.)—both of whom sickened December 9th—and his brother-in-law, Chas. D., who sickened December 10th. James D (the original case) probably contracted his disease at Cropstone from coming into contact with an infected navvy about November 13th, 1894. The navvy could not be traced, however.

There were thus four cases of Small-Pox at a house in Parry Street, but fortunately the people did not mix much with their neighbours. John B., however, living next door, sickened December 29th with an attack of what proved to be mild, aborted, cohœrent Small-Pox. He has three vaccination marks on the right arm. It appears that a parcel was sent to him from the infected house in Parry Street on December 15th, and fourteen days afterwards he sickened.

The house (Parry Street) was disinfected December 18th, and twelve days afterwards the disinfecting man (Arthur M.) sickened with Small-Pox. He had been vaccinated (four left) in infancy, but not re-vaccinated.[*] His attack was very mild, only about two dozen spots, which aborted.

Thus, from the original (unrecognised) case, James D., arose five others (three directly and two indirectly).

In connection with these 8 cases of Small-Pox admitted during the year the usual precautions were taken. I find from my notes that vaccination and re-vaccination were resorted to as follows:—of 26 inmates of infected houses 11 were vaccinated and re-vaccinated *at once*;[†] of the other 15. 6 having been re vaccinated or having had Small-Pox attacks were, in my opinion, sufficiently protected, so that re-vaccination was not offered them, whilst 2 had good vaccination marks and 7 remained unvaccinated. In connection with the case (Tom P.) at the Union Workhouse, 32 other inmates were vaccinated or re-vaccinated *at once.*

The two cases other than Small-Pox were Ida C., aged 22, suffering from varicella; James C., aged 1, suffering from pneumonia, following whooping cough: of whom the latter died.

List of Quarantines in Infected Houses.

with L. G.	Mrs. G. re-vacc. Mr. G. had had Small-Pox.	
with G. R.	Mr. R. re-vacc. Mrs. R. re-vacc. at once. Minnie R. unvacc. Ada R. vacc. Nellie R. vacc.	Ernest R. unvacc. Walter R. vacc. at once. Sidney R. vacc. at once. Wilfred R. unvacc.
with M. M.	Miss P. re-vacc. at once. Miss A. re-vacc. at once. Charles R. re-vacc. at once.	
with C. E.	Mrs. E. re-vacc. at once. Beatrice E. vacc. at once. Maggie E. vacc. at once.	
with J. B. (tramp).	None	
with T. P.	32 vaccinated at once in the Workhouse.	

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[*] Arthur M. was re-vaccinated by the Medical Officer about two years ago, but did not "take."

[†] 7 were revaccinated, and 4 vaccinated, at once.

Full Particulars as to Small-Pox Cases.

(Nature and severity of attack, state of vaccination, name, age, etc.)

Name of Patient.	Age.	Vacc. or not Vacc. *i.e.*, Vacc. marks or not.	No. of Vacc. Scars.	Nature of Small-Pox attack.	Mild or severe.	Result.	Duration of disease in days, *i.e.*, from spots to normal temperature.	Duration of Secondary Fever in days.	State of Patient as to		Highest temperature Fahr. Registered	Complications	Remarks.
									Delirium.	Pitting.			
Lizzie G. ...	21	yes	4 left	discrete	very mild	recovery	3	0	none	none	99°	...	aborted about 1 doz. spots
George R....	13	yes	4 left	discrete	very mild	recovery	6	2	none	none	100·°4	...	aborted 30 spots
Matilda M.	33	yes	5 left	discrete ? cohœrent	mild	recovery	17	13	none	none	101·°8	...	aborted
Charles E...	48	yes	3 right	confluent	severe	recovery	32	27	slight	slight	104°	...	...
John B. ...	25	yes	2 left	discrete ? cohœrent	mild	recovery	11	7	none	none	103°	...	aborted
John S. ...	40	yes	4 right	discrete ? cohœrent	very mild	recovery	8	4	none	none	101°	...	aborted
Tom P. ...	5	no	none	cohœrent ? confluent	severe	recovery	18	14	none	slight	103·°2	...	...
Charles B.	26	yes	1 left (large)	confluent	mild	recovery	13	9	none	severe	101·°8	...	aborted

with C. B.	Mr. D. had had Small-Pox. Mrs. D. had had Small-Pox. Mr. D. had had Small-Pox.
with J. S.	Mrs. S. re-vacc. at once. Servant re-vacc. at once. four children unvacc.

Again, I wish to draw attention to the fact that the two-ward Small-Pox Hospital was only built as a *temporary* building, and that, therefore, no trouble should be spared to find a suitable site away from the Town upon which to build a Small-Pox Hospital that will meet the requirements of a County Borough such as Leicester, with a population of close upon 200,000 people. The present Small-Pox accommodation in London is 1 bed to every 3774 of the inhabitants, whilst that of Sheffield is 1 to 3330. This is little enough when the tendency of the times is to trust more and more to prompt isolation in dealing with Small-Pox; but for a working hypothesis, we may reckon 1 bed to every 4000 inhabitants, thus making a Small-Pox accommodation of 50 beds a *minimum* for such a Town as Leicester. The present accommodation for Small-Pox is a *maximum* 20 beds, and as at any time you may find yourselves called upon to isolate a small out-break of over 20 cases, it is of the greatest importance for me to lay the matter plainly before you and warn you, so that it will not be necessary to turn out the Scarlet Fever cases from the Main Buildings in the event of Small-Pox breaking out seriously in the Town. I would remind the Committee also that the M.S. and L. Railway Company contemplate commencing important works in or near to the Borough, and so bringing into your midst a large number of tramps (workmen, navvies, etc.)—a sort of floating population, the individual members of which may at any time sicken of Small-Pox, and require promptly isolating so as to prevent, if possible, an outbreak of this loathsome disease.* At the time of writing this Report, I find that the lodging-houses in the Borough are already becoming crowded, no doubt owing to the influx of navvies, etc., in connection with the M.S, and L., as the contractors do not supply any special accommodation or any means for temporary isolation (such as all contractors ought, I think, to be compelled by law to do). Consequently, your small *temporary* isolation Small-Pox Wards must be at their service in order to protect the Town. I make no apology, therefore, for again reminding you of the necessity of providing suitable and ample isolation (Small-Pox) accommodation—suitable as to position of Hospital, and amount of cubic space per patient; ample as to number of beds, and accommodation generally available.

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* A widespread epidemic of Small-Pox in Derbyshire arose in this way, *i.e.*, through navvies working on the Midland Railway last year, 1893.

Indeed, the question of a new Infectious Diseases Hospital may also with advantage be mentioned here. That there is a necessity for such a Hospital, wherein to isolate not only Scarlet Fever, but also Typhoid, Diphtheria, and other infectious diseases (other than Small-Pox), no one will gainsay : the only wonder is that the Council as a body has not risen to the occasion long ago, and provided Leicester with an Infectious Hospital worthy of such an important Town, and a Town that in other municipal and sanitary matters generally takes the lead. It is only fair to the Sanitary Committee to mention that they brought forward such a scheme, but failed to carry it through the Council.

TABLE E.

Cases of Infectious Diseases admitted into the Fever Hospital from 1879 to 1894 inclusive.

Year.	Small-Pox	Scarlet Fever.	Erysipelas.	Typhoid.	Measles.	Unclassified or Doubtful.	Quarantine.	Total.
1879	0	247	22	0	0	0	0	269
1880	1	230	47	5	0	0	0	283
1881	6	388	46	0	0	0	0	440
1882	30	460	44	0	0	0	0	534
1883	12	383	12	0	0	0	0	407
1884	6	354	5	0	0	0	0	365
1885	8	900	3	0	0	3	10	924
1886	1	439	0	0	10	5	2	457
1887	10	151	1	13	0	2	14	189
1888	23	94	1	0	0	0	39	154
1889	0	327	1	1	1	0	0	330
1890	0	471	1	3	1	4	0	480
1891	0	636	0	0	2	12	0	650
1892	38	727	0	0	6	4	97	872
1893	281	0	0	0	0	10	144	435
1894	8	413	0	0	0	2	1	424

NOTE.—Prior to 1885, the number of persons in quarantine is not known, no record being kept. Quarantine cases that sickened and developed Small-Pox appear in the Small-Pox, as well as in the Quarantine, column, of the above Table.

TABLE F.

Payments and Receipts during the year ending 31st Dec., 1894.

PAYMENTS, viz.:—

	£	s.	d.
Matron's Salary	70	0	0
Wages	509	7	1
Provisions, etc.	546	13	4
Ale, Wine, Mineral Waters, etc.	29	15	7
Domestic Utensils	35	4	4
Alterations and Repairs	283	5	1
Furniture, Fitting, etc.	53	9	7
Rates, Taxes, and Insurance	22	18	9
Fuel, Gas and Water	294	15	6
Drugs and Disinfectants	21	14	8
Plants, Seeds, etc.	8	9	5
Horsekeep and Ambulance	59	4	1
Rent of Telephone	8	0	0
Advertising, Printing and Sundries... ...	26	11	2
Payments to Persons in Quarantine ...	3	10	0
	£1972	18	7

RECEIPTS, viz.:—

	£	s.	d.
Maintenance of Patients Repaid	56	0	6
Disinfecting Bedding, etc.	7	0	6
	£63	1	0

Hospital Expenditure.—The expenditure for the year has been £1972 18s. 7d.—a decrease of £1259 10s. 5d.* on last year—with, however, a smaller number of patients under treatment, and these too principally children suffering from Scarlet Fever as compared with adults and children suffering from Small-Pox last year.

The receipts (maintenance of patients from outside districts, charges for disinfecting clothes and bedding for neighbouring authorities, etc.) amounted to £63 1s. 0d., and deducting this from £1972 18s. 7d. mentioned above, and dividing by the number of persons treated, it gives the sum of £4 10s. 1d. as the cost per head.

The average number of beds occupied weekly was 38·7, whilst the average stay in the Hospital for each patient was 36 days. The cost per occupied bed was, therefore, 19/4 per week, as compared with 34/2 last year (Small-Pox), and with 12/1½ in 1892 (Scarlet Fever).

Average Residence (days) in Hospital of cases treated.

	All cases	Small-Pox.	Quarantine.	Scarlet Fever.	Diseases other than Small-Pox and Scarlet Fever.	
					Chicken-Pox.	Pneumonia.
Non-fatal cases	36·6	37·1	2	36·7	7	0
Fatal cases ...	11·8	0	0	12·3	0	7

Average residence of vaccinated = 34·5 days.
Average residence of unvaccinated = 40·4 days.

The Nursing Staff (under the superintendence of Miss Wigg) has worked well during the year, and it is to them that must be attributed in great part the low death at the Hospital.

The health of the Nursing Staff, on the whole, was good.

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* From this sum, £1259 10s. 5d., there must be subtracted £323 6s. 4d., the cost of the Iron Hospital (Nurses' Rooms) erected and included in the expenditure for 1893, and £125 10s. 0d. in connection with an infringement of patent and costs (disinfecting apparatus) and also included in the 1893 expenditure; whilst on the other hand mention must be made of the new Small-Pox Wards, which have cost £534 2s. 4d.

APPENDIX.

REPORT OF ANALYST.

SPECIAL REPORT ON WORKSHOPS.

CENSUS RETURNS, 1891.

RULES FOR INFECTIOUS DISEASES
(lately revised and adopted by the School Board of Leicester).

LOCALITIES OF DEATHS FROM ZYMOTIC DISEASES.

MORTALITY TABLES.

MAPS.

ANALYST'S REPORT.

Borough Analyst's Laboratory,
Town Hall, Leicester,
February, 1895.

A larger number of samples have been analysed, under the provisions of the Food and Drugs and Margarine Acts, during 1894, than in any previous year, viz.: 400, of which 36 were found to be adulterated, *i.e.*, 9 per cent. 21 prosecutions have been instituted against the vendors and the fines have amounted to £36 13s. 0d. (exclusive of costs). 7 vendors were written to and cautioned by the Committee, in connection with adulterated spirits. 196 samples of milk (out of a total of 212) were found to be unadulterated, the remaining 16 being adulterated with 4 %, 4 %, 4 %, 4 %, 5 %, 5 %, 6 %, 6 %, 6 %, 7 %, 9 %, 10 %, 18 %, 24 %, of added water, 4 % and 4 % of cream abstracted, respectively. There were 10 prosecutions and the total fines inflicted were £14 3s. 0d. In 6 cases no action was taken. On the whole the quality of the milk in Leicester during 1894 has been fair; in some cases exceptionally good. Doubtless the large number of samples taken and the activity generally of the Inspectors have brought about this change, which, it is to be hoped, will continue.

A large number of the milk samples were taken at the Railway Stations, *i.e.*, whilst the milk was in transit from the farmer to the retailer.

Six samples of condensed milk were analysed and found to be genuine, *i.e.*, of the nature stated on the label. In one instance, the label (in very small print) stated that the tin contained milk with "some" of its cream abstracted; and on analysis such was certainly found to be the case, for 95 % of the cream was missing!

One sample of skimmed milk on analysis was found to have been not only skimmed to the extent of 75 % of its cream, but also watered up to the extent of 10 %. No action, however, was taken by the Committee in this case. Of 132 samples of butter 10 were adulterated with 65 %, 85 %, 85 %, 85 %, 85 %, 90 %, 90 %, 90 %, 90 %, 90 % respectively of foreign fat, other than butter fat, There were nine prosecutions, and the total fines were £18 10s.; whilst one summons was withdrawn. In no case was the amount of water more than 20 %, but in several cases there was reason for believing that adulteration with foreign fat to the extent of about 8 per cent. had been practised. Such a small adulteration, cannot, unfortunately, be taken into Court, owing to the low standards adopted, but it is well known that the profits must be considerable in the case of large wholesale traders in such mixtures.

Six samples of lard were all found to be adulterated, as were also the samples of pepper, mustard, bread, and arrowroot.

Of 12 samples of spirits analysed 9 were found to be adulterated with water to the extent of 1.1°, 1.1°, 1.5°, 1.6°, 2.1°, 2·2°, 2.7°, 4.0°, and 4.1° respectively below the amount allowed by law, *i.e*,, 25° under proof for brandy, whiskey, and rum, and 35° under proof for gin. In only two cases were prosecutions instituted (owing to the smallness of the amount of adulteration), with total fines of £4. Seven other vendors were written to and cautioned by the Committee.

Five samples of beer were found on analysis to be unadulterated.

One sample of milk and one of butter were submitted to me privately for analysis, and the usual fees (10s. 6d. in each case) paid to the Corporation. Both were found to be unadulterated.

A sample of coffee submitted by the Watch Committee was found on analysis to be a mixture of coffee aud chicory.

WATER ANALYSIS.

The Town's water supply has been examined many times during the year, and several special analyses of different waters have also been made for, and reported to, the Water Committee during the period of the water scarcity and the using of the various auxiliary supplies. The analyses of these auxiliary supplies were submitted to me as follows :—

	Chlorine (grains per gallon).	Free Am. (parts per million).	Alb. Am. (parts per million).	Nitrogen as Nitrates (parts per mil.)	Total Solids (grains per gallon)
I.	2·35	.00154	.0053	·521	184·4
II.	2·75	.0098	·0112	·895	89·6
III.	1·41	·00168	·01288	·360	134·6
IV.	1.6	·002	·08	5·7	58·5
V.	6·46	·060	·05	2.58	131.60

No. V. was reported by me to be unfit for drinking purposes, and in consequence was not afterwards pumped into the Mains.

Whilst the auxiliary supplies were being pumped into the Mains, the tap water from six different parts of the Town was collected by the Inspectors on November 1st, 1894, and analysed by the Public Analyst, with the following results :—

	Chlorine (grains per gallon).	Free Am. (parts per million).	Alb. Am. (parts per million).	Nitrogen as Nitrates (grs per gal)	Degrees of hardness
I. (Aylestone)	2·1	·016	·15	2·9	55
II. (Stoneygate)	1·3	·003	·19	traces	10
III. (Newfound Pool)	1·3	·008	·16	traces	23
IV. (Loughborough Road)	1·3	·005	·15	2·4	10
V. (New Humberstone)	1·3	·003	·14	traces	14
VI. (Town Hall)	1·3	·008	·16	1·5	13

From the analyses it will be seen that three of the samples were very "hard" (that at Aylestone 55 degrees), but otherwise the water supply of the Borough was, even at that time, satisfactory as far as chemical analysis could shew.

The water in a well on the grounds of the Borough Asylum was analysed during the year, and found to be unfit for domestic use. It was not, nor had it been, used by the Inmates.

Fourteen samples of water from wells in various parts of the Borough were submitted for analysis, and of these 12 were found to be unfit for drinking purposes, and the usual steps taken to have them closed (*i.e.*, in regard to their uses for domestic purposes).

A sample of water found leaking into a cellar of a house on the Fosse was found on analysis to be sewage-contaminated.

At the beginning of July, 1894, several different samples of tap water were submitted to me for analysis on account of the peculiar "fishy" smell presented by them. There was naturally some little alarm felt in the Town, more especially as we were then on the verge of a water famine; and accordingly a special Report was drawn up, and presented on July 14th to the Water Committee, by me.

In this Report I pointed out, as the result of my investigations and analyses, that certain changes of a temporary character took place in the Reservoirs on July 6th and 7th, certain chemical reactions in the nitrogenous organic matters, vegetable and animal, which are usually contained in Reservoir or impounded waters, though somewhat in excess in Leicester. The organic matters appeared thereby to have been split up into various ammonia compounds, one of which, trimethylamine, appears to have caused the peculiar "fishy" smell that was so generally noticed in the water supplied at that time to the Town. These changes in the constituent elements of the organic matters were probably, in part at least, brought about by the excessive heat and the thunder weather of July 5th, 6th and 7th (on which dates the water itself registered a high temperature of 65° F).

Many suggestions were offered by the Medical Officer of Health to the Water Committee and carried out by them, *e.g.*, slower filtration, regular periods of rest for each filter, additional filtration beds, destruction of vegetation immediately surrounding (and on the exposed bed of) the Reservoirs, thinning of the fish in the Reservoir, etc.

There was no sewage contamination of the water, and there was and has been, in consequence, no interferance with, or impairment of, the Public Health

A series of analyses were made of a well-water at a private residence in Stoneygate, and a special Report thereon submitted to the Sanitary Committee. The water was found to be contaminated probably with slop water, and was in consequence certified by me to be unfit for domestic use.

OTHER LABORATORY WORK.

A pork pie which was stated to have caused symptoms of poisoning in those who partook of it was submitted by me to special bacteriological analysis, but with negative results.

The spleens of two animals that had suddenly died were also examined bacteriologically, and proved thereby to be the organs of animals that had suffered from acute anthrax.

TABLE I.

Number of Articles Analyzed, and proportion of Adulterated Articles, in 1894, and in the ten previous years.

Year.	Number of Samples Analyzed.	Number of Samples Adulterated.	Percentage of Samples Adulterated.	Number of Prosecutions.	Percentage of Adulterated Samples in the following articles.			
					Milk.	Butter.	Spirits.	Groceries, Drugs, &c.
1894	**400**	**36**	**9**	**21**	**7·5**	**7·5**	**75·0**	**0·0**
1893	202	24	11·8	16	9·1	20	66·6	0·0
1892	154	14	9·09	2	2·5	0·0	0·0	50·0
1891	178	35	19·6	7	20·0	7·1	66·6	3·2
1890	150	9	6·0	3	8·5	0·0	16·6	0·0
1889	178	19	10·6	10	9·2	35·7	33·3	13·3
1888	162	17	10·4	10	9·5	11·7	50·0	16·0
1887	146	16	10·9	10	10·8	13·3	75·0	6·6
1886	168	25	14·8	9	17·4	17·6	20·0	28·4
1885	87	0	0·0	0	0.0	0·0	0·0	0·0
1884	96	4	4·1	4	6·4	0·0	22·2	0·0
Average for the 10 years, 1884-93.	152·1	16·3	...	7·1	...	...	...	...

TABLE II.

Articles of Food, etc., Analyzed under the provisions of the "Sale of Food and Drugs" and "Margarine" Acts during the year 1894.

Commodity Analyzed.	Number of Samples obtained	Number of Genuine Samples.	Number of Adulterations.	Remarks.
Milk	212	196	16	Ten prosecutions : total fines £14 3s., and one summons dismissed on production of warranty. In six cases no action was taken. 22 were of poor quality.
Condensed Milk	6	6	0	
Skimmed Milk	3	2	1	No action taken.
Butter	132	122	10	Nine prosecutions : total fines £18 10s.; one summons withdrawn. No action was taken in one case 27 samples were of poor quality
Lard	6	6	0	
Pepper ...	6	6	0	
Bread	12	12	0	
Mustard ...	3	3	0	
Arrowroot ...	3	3	0	
Spirits:				
Scotch Whiskey	3	2	1	Two prosecutions : total fines £4 ; 7 other vendors were written to and cautioned by the Sanitary Committee
Brandy ...	3	1	2	
Rum	3	0	3	
Gin	3	0	3	
Beer	5	5	0	
Total ...	400	364	36	

WORKSHOPS.

The Factory and Workshops Act 1891. which came into operation on January 1st, 1892, imposes *inter alia* the following duties upon the Town Council :—

1.—To look after the Sanitary Conditions of Workshops ;

2.—To attend to certain conditions in respect of Laundries and Bakehouses ;

3.—To provide means of escape from certain Factories in case of fire.

Duties 1 and 2 were relegated to the Sanitary, duty 3 to the Highway and Sewerage, Committee, by resolution of the Council, November 9th, 1891 (vide Minutes).

Consequently, a great deal of extra work has been thrown upon the Sanitary Department in relation to the sanitary supervision of Workshops (a duty which formerly was performed by Factory Inspectors) During 1892-3, however, little or nothing was done in Leicester in this connection owing to the epidemics of Small-Pox, Typhoid, and Scarlet Fever, but during the past year I have had a systematic and complete examination made of the Workshops of the Borough by Inspector Bent. The Workshops have been visited, inspected, and measured, careful notes being also taken of their sanitary conditions,* of their state as to cleanliness and ventilation, and also of the number of operatives or work-people employed (together with the nature of their employments or works). The Register now being completed, it will be necessary to pay regular and systematic visits to these Workshops so as to see that their sanitary conditions remain in a satisfactory state, and that there is no overcrowding.

Each separate room in the different Workshops has been measured, its cubic space registered, and a card hung up stating the exact number of persons that may be employed therein at any

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* *e.g.*, as to freedom from effluvia arising from any drain, w.c., earth closet privy, urinal, or other nuisance.

TABLE I.

Trades, etc.	No. of workshops.	No. of workrooms.	No. of Employés at time of Inspector's visit.			No. of workrooms found to be overcrowded.	Extent of overcrowding (number of persons too many).
			Male.	Female.	Total.		
Boot and Shoe... ...	89	238	1350	250	1600	31	varying 1 to 17
Dressmaking	48	72	1	438	439	11	„ 1 to 8
Millinery	9	12	0	56	56	3	„ 1 to 3
Hosiery	18	38	73	56	129	1	4
Tailoring	29	46	108	116	224	0	
Rope Making	2	5	35	0	35	0	
Fancy Box Making ...	7	22	20	171	191	0	
Glove Making... ...	3	8	15	9	24	0	
Cabinet Making ...	3	5	13	0	13	0	
Cap & Shoe Bows Mkg.	2	5	4	6	10	1	1
Curriers	2	5	6	1	7	0	
Boot Lace Making ...	2	7	35	17	52	0	
Dyeworks	1	1	2	0	2	0	
Needle Making ...	3	4	12	0	12	0	
Brush Making... ...	2	6	17	3	20	0	
Willow Making ...	3	11	56	6	62	0	
Sugar Boiling	2	3	11	0	11	0	
Silk Button Making ...	1	1	0	5	5	0	
Cycle Works	1	1	3	0	3	0	
Slipper Embroidery ...	1	1	1	0	1	0	
Leather Bag Making ...	1	1	6	0	6	0	
Umbrella Making ...	1	3	2	1	3	0	
Upholstering	1	1	2	0	2	0	
Cardboard Making ...	1	2	4	4	8	0	
Furniture Painting ...	1	1	1	0	1	0	
Waterproof Making ...	1	1	2	1	3	0	
Totals	234	500	1779	1140	2919	47	varying 1 to 17

one time. The Sanitary Committee decided* that 250 cubic feet per person was a sufficient space, but this limit is small enough when we remember that no provision is allowed for those working overtime, or for gas jets that may be burning in the Workshops, whilst the employés are at work. A *minimum* 300 cubic feet would be better, as the importance of better ventilation and a more healthy condition of atmosphere in the Workshops is very great sanitarily, indeed cannot be over-estimated. The more attention that is paid to the conditions under which the work-people live during their hours of work, the better the state of their health. An ordinary man (at rest) gives off ·6 cubic feet carbonic acid gas per hour, and 1 cubic foot of gas (on burning) gives off 2 cubic feet of carbonic acid gas per hour. An ordinary small gas jet burning 3 cubic feet of gas per hour will give off six cubic feet of carbonic acid gas, and therefore will pollute (as to carbonic acid gas) the air of a room as much as the ordinary breathing of ten persons! The necessity for more stringent supervision of the Workshops in Leicester (as doubtless also elsewhere) will be admitted when I state that of 500 workrooms that have been visited and measured, 47† were found to be overcrowded (some of course to a greater extent than others) as Table II will be found to shew in detail.

In the 234 Workshops visited, a total of 2919 persons (1779 males, and 1140 females) were being employed, and it will be seen from Table II that 150 employés (*i.e.*, 5·1%) were working in a state of overcrowding ‡ at the time of the Inspector's visit; so that, as far as these particular Work-rooms are concerned, 150 employés have been compelled, by order of the Sanitary Committee,

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* See Minutes of Sanitary Committee March 9th, 1894.

† 15·8% of the Workshops and 9·4% of the Workrooms were found to be overcrowded—the worst cases being 17, 34, 24 and 31 workers in workrooms only large enough for 8, 17, 16 and 19 respectively.

‡ This overcrowding has been remedied by distributing the work people amongst other Work-rooms, by making structural alterations in the Work-rooms, so as to allow of more cubic square per person using rooms not hitherto used as Work-rooms, etc.

TABLE II.

Fuller Details as to Overcrowded Work-rooms.

Nature of Workshop.	Work-rooms over-crowded.	No. of Employés at time of Inspector's Visit.			No. of employés now allowed.	Extent of over-crowding (in persons).
		Male.	Female.	Total.		
Boot and Shoe... ...	31	352	24	376	267	109
Dressmaking	11	0	163	163	133	30
Millinery	3	0	22	22	16	6
Hosiery...	1	3	15	18	14	4
Cap and Shoe Bow Making	1	1	4	5	4	1
Totals ...	47	356	228	584	434	150

to cease work, and that too on the low estimate of 250 cubic feet of air space per person.

No Workshops were empty at the date of the Inspector's visit, but since his visit 4 have been found to have been closed.

So much for the overcrowding of the different rooms of the Workshops; and now as to the sanitary state of the Workshops themselves. Of the 234 Workshops visited and inspected, 115 were found to be in a good sanitary condition, whilst in the case of 119 sanitary defects were found and Notices served upon the respective owners or occupiers. Table III gives particulars as to sanitary conditions, and Table IV a list of the sanitary defects found with the number of legal Notices served in consequence. In six Workshops the drains were tested with smoke.

Examining more particularly into the sanitary states of the different Work-rooms, I find as follows:—

111 (*i.e.*, 22·2%) were unsatisfactory as regards cleanliness,

9 (*i.e.*, 1·8%) were unsatisfactory as regards ventilation.

The periodical cleansing and white-washing of Work-rooms is a matter that will need careful and constant attention; whilst the

No. of Workshops visited and inspected.		Total No. of work-rooms.	Cleanliness of Workrooms.		Ventilation of Workrooms.		Sanitary conveniences of Workshops.							
							W.C s.			Pails (with distance from Workshop).	Privies (with distance from Workshops).	Separate Closet accommodation for Males and Females.		No Closet accommodation at all.
								Inside.						
			Satis-factory.	Unsatis factory.	Satis-factory	Unsatis factory.	Outside	Soil Pipe ventil.	Soil Pipe unventil			Yes.	No	
Boot and Shoe Making	89	238	173	65	231	7	36	15	1	32	3	68	17	4
Dressmaking	48	72	64	8	72	0	28	19	0	0	0	47	0	1
Millinery	9	12	12	0	12	0	5	4	0	0	0	9	0	0
Hosiery	18	38	29	9	38	0	13	2	0	3	0	11	7	0
Tailoring	29	46	33	13	45	1	17	7	0	4	0	13	14	2
Rope Works	2	5	5	0	5	0	1	1	0	0	0	2	0	0
Fancy Box Maker ...	7	22	21	1	22	0	5	1	0	2	0	5	2	0
Glove Maker	3	8	8	0	8	0	1	0	2	0	0	3	0	0
Cabinet Maker ...	3	5	5	0	5	0	1	0	0	1	0	2	0	1
Cap & Shoe Bow Maker	2	5	5	0	5	0	1	0	0	0	0	1	0	1
Currier	2	5	2	3	5	0	1	0	0	1	0	1	1	0
Boot Lace Making ...	2	7	7	0	7	0	2	0	0	0	0	1	1	0
Dyeworks	1	1	1	0	1	0	1	0	0	0	0	1	0	0
Needle Maker	3	4	4	0	4	0	0	0	0	3	0	3	0	0
Brush Maker	2	6	1	5	5	1	0	1	0	1	0	2	0	0
Willow Works... ...	3	11	9	2	11	0	0	0	0	3	0	3	0	0
Sugar Boiler	2	3	2	1	3	0	2	0	0	0	0	2	0	0
Silk Button Making ...	1	1	1	0	1	0	1	0	0	0	0	1	0	0
Cycle Works	1	1	1	0	1	0	1	0	0	0	0	1	0	0
Slipper Embroidery ...	1	1	1	0	1	0	0	0	1	0	0	1	0	0
Leather Bag Making ...	1	1	0	1	1	0	1	0	0	0	0	1	0	0
Umbrella Making ...	1	3	0	3	3	0	0	0	1	0	0	0	1	0
Upholsterer	1	1	1	0	1	0	1	0	0	0	0	1	0	0
Cardboard Maker ...	1	2	2	0	2	0	1	0	0	0	0	0	1	0
Waterproof Maker ...	1	1	1	0	1	0	1	0	0	0	0	1	0	0
Furniture Painting ...	1	1	1	0	1	0	1	0	0	0	0	1	0	0
	234	500	389	111	491	9	121	50	5	50 (0' to 25')	3 (3' to 20')	181	44	9

TABLE IV.

List of Sanitary Defects found, with number of Notices served.

Defects Found.	No. of Workshops.	Total No. of Notices served in connection with the defects found.
Badly paved yards	7	119
No closet accommodation	9	
Damp workshops	8	
Defective slating to roof	13	
Defective rain water spouting	7	
No proper urinal	15	
Choked yard drain or defective gully	7	
Defective closet roof	7	
Leakage from external w.c.	10	
Dirty workshops	64	
No ventilation or badly ventilated	5	
Dangerous step ladder and landing	7	
Choked w.c.	6	
Defective flushing apparatus to w.c.	14	
Foul ashpits	8	
Sewer gas escaping from internal rain water pipes	1	
Defective floor of workshop	11	
No receptacle for refuse	6	
No door to closet	2	
Insufficient closet accommodation	27	
Defective closet seat	3	
No light or ventilation to w.c.	7	
Defective or choked urinal	22	
Dirty closets	5	
Defective glass in window	5	
Defective pan w.c. (internal)	1	
Unventilated soil pipe internal	1	
Untrapped lavatory waste to unventilated soil pipe	4	
Foul privy cesspool	2	
Foul manure heap	4	
Defective soil pipes (outside or inside) ...	2	
	290	

subject of the proper ventilation of Work-rooms without draughts is important and will require to be considered by architects and engineers. This subject has not been satisfactorily solved as yet, as will be admitted, I think, by anyone who will go round to some of the Work-rooms in Leicester during the winter months. Means of ventilation (*e.g.*, Tobin's tubes, chimneys, Sherringham's valves, windows that will open, etc.) are certainly there, but of little use, for the reason that the workpeople themselves will persist in blocking up all openings to the outside air.

Of the 234 Workshops visited, 9 (*i.e.*, 3·8%) had no closet accomodation whatever (viz., 4 boots and shoes, 1 dressmaking, 2 tailoring, 1 cabinet making, and 1 cap and shoe bow making); whilst 181 (*i.e.*, 77·3%) had separate closet accommodation for the two sexes. The remaining 44 Workshops that had no separate closet accommodation for the sexes include 9 which at present employ only one sex, but may, of course, at any time employ both.

3 Workshops have privies, 50 have pails, whilst of 176 supplied with w.c.s, 121 have them outside and 55 inside. 5 only of the Workshops with inside w.c.s have their soil pipes unventilated.

Section 3 of the Factory and Workshops Act, 1891, requires notice to be sent to H.M. Inspector of Factories if the Medical Officer of Health of a district becomes aware that children, young persons (under 18 years of age), and women are employed in Workshops. The object of this section is to enable the Factory Inspector to prevent such persons from working longer than the allotted time (*i.e.*, 74 hours per week). Such Workshops have been found in Leicester during the year, and the necessary notices given to the Factory Inspector of the district.

Section 27 of the Factory and Workshops Act, 1891, gives the Secretary of State power to order that the occupiers of certain Factories or Workshops, or the contractors employed by such occupiers in the business of those Factories or Workshops, shall keep lists of out-workers, and that those lists shall be open to inspection by a Factory Inspector, or by an officer of the Sanitary Authority. At present this section has only been applied (by Order dated Oct. 31st, 1892) to manufactories of articles of wearing apparel, of electro-plate, and of files, and to cabinet and furniture making and upholstery works. Such lists will be shortly prepared in Leicester.

I herewith append copies of the various notices, cards, etc., used in Leicester in connection with the carrying out of the Factory and Workshops Act, 1891—the duties of which are important from a point of view of the health of the working population of Towns.

BOROUGH OF LEICESTER.—FACTORY AND WORKSHOP ACT, 1891.

(1).—Card.

Not more than Persons are allowed to work in this Room at one time.

By order of the Sanitary Committee,

JOSEPH PRIESTLEY, M.D.,
Medical Officer of Health.

Health Department,
Leicester.

Full particulars as to the working of the Act may be obtained by enquiry at the Town Hall.

*(*2*).—Particulars as to duties devolving upon the Corporation under the Factory and Workshop Act, 1891.

BOROUGH OF LEICESTER.—THE FACTORY AND WORKSHOP ACT, 1891.

NOTICE IS HEREBY GIVEN, that this Act, in conjunction with the Factory and Workshop Acts, 1878 and 1883, confers upon the Corporation the following powers:—

As to Workshops.

To see that every workshop is kept in a cleanly state, and ventilated so as to render harmless any gases, dust, or other impurities arising from the work carried on therein.

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* These printed circulars were sent round to all Factories and Workshops.

That no overcrowding is allowed.

That all workshops are kept free from affluvia arising from drains, closets, etc.

That all workshops are limewashed, cleansed, and purified.

That due notice is given to the Factory Inspector of any child, young person, or woman employed in a workshop.

That the above duties are carried out by the Medical Officer of Health and Inspectors duly appointed.

(Note.—"Workshops" within the meaning of the Factory and Workshop Acts may be broadly described as any premises, room, or place in which or within the close or curtilage or precincts of which any manual labour is exercised by way of trade or for purposes of gain in or incidental to the making, altering, ornamenting, finishing, or adapting for sale of any article.)

As to Retail Bakehouses.

To see that no bakehouse has any closet or ashpit within or communicating therewith.

That every cistern supplying water to a bakehouse is separate from any cistern supplying water to a water-closet.

That no drain or pipe for carrying fœcal or sewage matter has any opening within the bakehouse.

That all bakehouses are kept in a cleanly state, and free from effluvia arising from drains, &c.

That no bakehouse is overcrowded, and that all bakehouses are properly ventilated.

That all walls, ceilings, &c., are painted and varnished or limewashed.

That no place forming part of a bakehouse is used as a sleeping place, except under special conditions.

That the above duties are carried out by the Medical Officer of Health and Inspectors duly appointed.

As to Factories.

To see that all new factories in which more than 40 persons are employed are so constructed as to provide means of escape in case of fire from all stories above the ground floor.

That all factories existing at the date of the Act coming into operation are provided with similar means of escape in case of fire.

Any further information with reference to the provisions of the Act can be obtained on application at my offices.

Notice is hereby given, that the powers above set out as to Workshops and Retail Bakehouses have been delegated to the Sanitary Committee, and those relating to Factories to the Highway and Sewerage Committee, to carry out, and all persons owning or occupying premises coming within the scope of the above provisions are recommended to see that the requirements of the Acts are at once strictly complied with.

By order,

JOHN STOREY,
Town Clerk.

Town Hall, Leicester,
March, 1894.

(3).—Form in connection with Out-workers.

Factory and Workshop Acts, 1878—1891.—The Manufacture of Articles of Wearing Apparel, the Manufacture of Electro Plate, Cabinet and Furniture Making and Upholstery Work, the Manufacture of Files. Out-Workers. [Form for use of Occupier.] Form prescribed by the Secretary of State. Factory and Workshop Act, 54 and 55 Vict., c. 75, s. 27. (Out-workers.) Address of Factory or Workshop..............Name of Occupier of Factory or Workshop..............Business carried on.............. Names of persons employed by the Occupier outside the Factory (or Workshop) in the business of the Factory (or Workshop), and places where they are employed, viz. :—A. Persons so employed as Workmen. Christian and Surname. Place where employed. B. Persons so employed as Contractors. Christian and Surname. Place where employed. Note.—In order that these lists may be correct lists of persons employed at any given time, it will be necessary that the name of any persons newly taken into employment should be immediately entered, and the name of any person ceasing to be employed should be immediately struck through.

My thanks are due to Capt. Armstrong (the Factory Inspector for the District) for kindly furnishing the Sanitary Department with a copy of his list of Workshops within the Borough.

SHOP HOURS ACT.

Little has yet been done under this Act. The Inspectors have been officially appointed* by the Town Council, and copies of the Act sent out to the occupiers of premises, etc., as mentioned in and required by the Act. No complaints have, however, as yet been received, and so no further action has been taken. This Act requires amendment, making a penalty clause in connection with the exhibition of the Notice relating to the Act, before it will be useful *practically*.

FEMALE INSPECTORS.

In the 234 Workshops visited, 1140 females were being employed, *i.e.*, 39 per cent. of the employés were women. Considering this proportion of female labour in the Wo~~a~~rkshops of the Borough, and the number of women and girls employed in shops in the Town, it becomes a question for the Council or Sanitary Committee to decide as to the advisability of appointing a female Inspector.

If we may judge from the experience of other Towns, such an appointment would be beneficial, whilst the duties might also include the visiting of the homes of the poor, and the teaching therein of the elementary principles of domestic hygiene and personal cleanliness.

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*See Minutes of Council March 28th, 1893.

CENSUS (1891) RETURNS.

During the past year, the final volumes of the 10th (1891) Census Returns have been published, and I am in a position now to lay before you some interesting and important facts relating to the population of the Borough of Leicester. It is unfortunate, however, that the amount of work necessitated in compiling and arranging the Census Statistics for England and Wales by the Registrar-General has prevented me from laying before you this Summary of the Censal Returns, in so far as they relate to Leicester, at an earlier date.

For different administrative purposes the area of England and Wales is divided into various divisions, but the divisions made for one administrative purpose are often independent of, and different from, those made for another. The result is bewildering. Thus, there are Ancient, Registration, and Administrative, Counties; Parliamentary Areas; Registration Divisions, Districts, and Sub-districts; Urban and Rural Sanitary Districts; Municipal and County Boroughs; Petty Sessional Divisions; Civil and Ecclesiastical Parishes; Ecclesiastical Provinces and Dioceses.

Since the date of the 1881 Census many of these divisions have been changed as regards their boundaries and areas, or new divisions have been created, *e.g.*, civil parishes, ecclesiastical parishes, sanitary districts (urban and rural), and parliamentary areas. Leicester has taken part in these various changes, and in the interest of simplicity it is to be hoped that the resolution of the Council (Jan. 29th, 1895) to the effect that "all the Parishes within the Borough of Leicester should be united into one Parish" will be at the earliest moment carried out.

The County Borough of Leicester has a separate Court of Quarter Sessions, and a separate Commission of the Peace; and contains 17 entire Civil Parishes or Townships,* 18 Ecclesiastical Parishes or Districts, and 16 Municipal Wards.

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* By "Civil Parish or Township" is meant a place in which a poor-rate is or can be separately levied, and a separate Overseer is or can be appointed.

Originally Civil and Ecclesiastical Parishes were identical, but not so now (thanks chiefly to the Divided Parishes Acts 1876, 1879, and 1882); indeed, what concerns and interests us most is the division into Municipal Wards as follows :—

Municipal (County) Borough of Leicester (as enlarged by the Leicester Borough Extension Act, 1891).

WARDS.		Houses.			Population.		
		In-habited.	Un-inhabited	Build-ing.	Persons.	Males.	Females.
I.	St. Martin's ...	1047	52	0	5133	2290	2843
II.	Newton ...	3040	98	11	13948	6741	7207
III.	St. Margaret's ...	2591	55	0	12171	5997	6174
IV.	Wyggeston ...	3530	144	0	16802	8276	8526
V.	Latimer ...	3538	155	0	17914	8647	9267
VI.	Charnwood ...	1723	30	11	8342	3971	4371
VII.	Wycliffe ...	2992	74	10	14569	6456	8113
VIII.	De Montfort ...	1800	67	14	8932	3758	5174
IX.	The Castle ...	2759	69	0	13329	6296	7033
X.	Westcotes ...	2244	54	51	11072	5122	5950
XI.	The Abbey ...	1513	62	27	7763	3704	4059
XII.	Belgrave ...	1958	124	19	9199	4341	4858
XIII.	W. Humberstone	2153	242	61	11324	5527	5797
XIV.	Spinney Hill ...	2472	117	78	12302	5851	6451
XV.	Knighton ...	1217	34	44	5976	2549	3427
XVI.	Aylestone ...	1129	250	26	5848	2915	2933
		35705	1628	352	174624	82441	92183

Comparing now the two censal years, 1881 and 1891, and remembering that the County Borough, as enlarged by the Leicester Extension Act, 1891, shews only *approximate* figures for 1881, we have the Municipal and Parliamentary Boroughs as follows :—

* Municipal Borough Leicester (County Borough).

	Area in statute acres.	Houses inhabited.	Houses un-inhabited.	Houses building.	Population.		
					Persons.	Males.	Females.
1881	8586	27682	1419	374	136593	64420	72173
1891	8586	35705	1628	352	174624	82441	92183

Parliamentary Borough Leicester (Southern Division).

1881	3200	24973	947	231	122376	57720	64656
1891	3366	29287	941	257	142045	67025	75020

It will be seen that the relative increase or decrease per centum during the ten years 1881-91 has been :—

		Municipal Borough.	Parliamentary Borough.
Houses.	Inhabited	28·9	17·2
	Uninhabited	14·7	·6 (decrease)
	Building	5·8 (decrease)	11·2
Population.	Persons	27·8	16·07
	Males	27·9	16·12
	Females	27·7	16·02

The Leicester Extension Act came into operation on Jan. 1st, 1892, and it is interesting to compare the two years 1881 and 1891 for Leicester, assuming that the Borough Boundaries were the same, *i.e.*, not extended, in the two years. Thus :—

	Population.	Registered in the 10 years, 1881-90			Excess of Registered Births over Deaths 1881-90.
		Marriages.	Births.	Deaths.	
1881	122376				
10 years 1881-90		11843	47742	26656	21086
1891	142045				

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* As enlarged by the Leicester Extension Act, 1891.

Natural increment, *i.e.*. excess of birth over deaths, is 21086, and the actual increase 19669, *i.e.*, 16 %, between 1881 and 1891. We may assume, therefore, that 1417 represents the excess of those who migrated from, over those who migrated into, Leicester—the tendency being as Towns increase for the inhabitants or new comers to settle in the Suburbs, *i.e.*, outides the Boundaries.

The *enumerated* population for the extended Borough of Leicester was on the night* (12 p.m.) of April 5th, 1891, 174624, as compared with the *estimated* population for the same date, of 176,429.

This over-estimation of the population is not confined to Leicester, other Towns having suffered in the same way. In fact, these differences between estimates and reality are unavoidable when the interval between the census takings is as much as ten years. The shorter the intercensal interval, the smaller the difference between "enumerated" and "estimated" populations. In this respect the Metropolis now has the advantage over the Provinces, for by the London (Equalisation of Rates) Act, 1894—57 and 58 Vict., c. 53—a quinquennial census for each parish in the administrative County of London is arranged for, the first census to be taken on March 29th, 1896. Statistically, the importance of such an Act, in so far as it relates to the census-taking, cannot be overestimated.

This difference between Leicester's estimated and enumerated populations is dependent upon two causes, viz.: (1) a falling off in the excess of births over deaths, *i.e.*, a deceased "natural increment," and (2) an increase in the excess of *Emigrants over

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* The 1891 Census was taken on April 6th, 1891, all persons returned as having been living at twelve o'clock on the preceding night being enumerated.

* "Emigrant" includes—

1.—Emigrants proper, *i.e.*, persons who have left the Country to establish themselves outside Europe;
2.—Persons who have gone abroad (in or out of Europe) as travellers, etc.;
3.—Persons who have migrated from England and Wales to other parts of the United Kingdom;
4.—Any persons who died on the decennium, but whose deaths were not registered at the date of the enumeration.

"Immigrant" includes the opposites of these groups.

Immigrants. Whether emigration was increased or immigration decreased, there are no means of stating. The falling off in the excess of births over deaths is not due to an increased death-rate (the mean annual death-rate in 1881-90 being 19·3, *i.e.*, lower than in any earlier decennial period recorded), but to a persistently decreased birth-rate (the mean annual birth-rate in 1881-90 being 34·74, varying from 38·26 in 1881, through 34·39 in 1885, to 30·43 in 1890). The following Table shews this at a glance :—

Intercensal periods.	Mean Annual Birth-rate.	Mean Annual Death-rate.
1841-51	37·76	26·99
1851-61	37·60	25·26
1861-71	40·52	25·95
1871-81	41·94	24·47
1881-61	34·75	19·35

At the date of the Census 1891, Leicester's population was found to be over-estimated 1·03 %, the enumerated population being 174,624 and the estimated (for that date April 5th, 1891) 176,429.

If we compare Leicester (extended Borough) with the 62 Great Town or Urban Sanitary Districts (including London), each of which had more than 50,000 inhabitants in 1891, we find that in regard to the population Leicester ranks fourteenth (London, Liverpool, Manchester, Birmingham, Leeds, Sheffield, Bristol, Bradford, Nottingham, West Ham, Kingston-upon-Hull, Salford, and Newcastle-upon-Tyne having, *in order of merit*, larger populations); whilst during the decennium 1881-91, the population has increased 27·8%, as compared with 14·5 % for the total 62 Towns, 10·4 % for London, and 11·7 % for England and Wales. All the 62 Towns shewed an increase of population except Liverpool, the population of which declined 6·2 %—a condition explainable by the fact that the inhabitants and new comers have a tendency to reside outside the boundaries in all such Towns, whilst Liverpool has an exceedingly restricted Municipal area.

The proportion of females to males in Leicester on April 6th, 1891, was 1118 to 1000 as compared with 1117 for London, 1064 for England and Wales, and 1073 for Leicestershire, respectively per 1000. Of the whole population (174,624) there were :

	Male.	Female.
Unmarried	49.506 ...	55.348
Married	30,550 ...	30.857
Widowed	2,385 ...	5.978

	Unmarried.	Married.	Widowed.
i.e., of the whole population there were	60%	35%	5%
of the male population there were	60%	37%	3%
of the female population there were	60%	34%	6%

Under 15 years of age none of the population were married, but between 15 and 20 years of age, 72 males and 181 females were returned as married, whilst between 20 and 25 years of age, 12 males and 26 females were returned as widowed. Full particulars are given in the following Table :—

As to Marriages and Ages

Ages.	Unmarried		Married.		Widowed.	
	Male.	Female.	Male	Female.	Male.	Female.
Under 15 ...	30212	31442	...	...	...	...
15—	8438	10127	72	181	...	...
20—	5461	6433	2114	3029	12	26
25—	3513	4332	9611	10045	166	289
35—	983	1470	8467	8357	322	736
45—	522	797	5570	5404	460	1255
55—	229	444	3114	2723	514	1464
65 and upwards	148	303	1602	1118	911	2208
Total (all ages)	49506	55348	30550	30857	2385	5978
			174624			

The next Table* gives the age-periods of the population, thus:—

	Males.	Females.
Under 1 year	2377	2403
1 year	2103	2130
2 ,,	2069	2295
3 ,,	2133	2190
4 ,,	2028	2021
Under 5 years	10710	11039
5 years	9993	10338
10 ,,	9509	10065
15 ,,	8510	10308
20 ,,	7587	9488
25 ,,	7102	8035
30 ,,	6188	6631
35 ,,	5334	5659
40 ,,	4438	4904
45 ,,	3646	4025
50 ,,	2906	3431
55 ,,	2156	2483
60 ,,	1701	2148
65 ,,	1186	1525
70 ,,	831	1136
75 ,,	417	619
80 ,,	167	256
85 ,,	51	70
90 ,,	7	19
95 ,,	2	3
100 and upwards	0	1

Further, of these 174,624 persons living in Leicester at the date of the Census:—

3,300 had been born in London,

158,128 had been born in Midland Counties,

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* This Table must be considered as only approximate, many being the errors from mis-statements (wilful or otherwise) or from ignorance. The male statistics are more trustworthy than the female ones!

125.229 had been born in Leicestershire.
2,645 had been born in Yorkshire,
974 had been born in Ireland,
751 had been born in Scotland,
432 had been born in Wales (including Monmouthshire),
458 had been born in British Colonies or Dependencies,
436 had been born in Foreign Countries,
21 had been born at sea;

whilst of the 436 who had been born in Foreign Countries, 94 were British subjects and 342 were Foreigners, viz.:—14 Russians, 16 Poles, 34 French, 57 Germans (including Heligolandians), 10 Swiss, 32 Italians and 140 Americans (125 from the United States).

71·7 % of the inhabitants of Leicester had been born in Leicestershire, and 90·5 % in the Midland Counties.

A dismal side of the picture is to be found in the following statistics as to blindness, deafness, dumbness, and insanity. 109 were returned as blind, 58 as deaf, 588 as mentally deranged, and 69 as deaf and dumb; whilst 21, 4 and 23 had been respectively blind, deaf, and mentally deranged from birth. Equally dismal are the statistics relating to the populations of the various Institutions, thus:—

Population of Institutions in Leicester at time of the 1891 Census.

Total Number of Inmates, including Officers, etc.

	Persons.	Males.	Females.
Workhouse	704	401	303
Borough Asylum	551	251	300
General Infirmary	233	104	129
County Asylum	484	224	260
H.M. Prison	159	139	20
Infectious Hospital ...	42	15	27

Officers only.

	Persons.	Males.	Females.
Workhouse	25	10	15
Borough Asylum	54	21	33
General Infirmary	61	5	56
County Asylum	37	10	27
H.M. Prison	8	2	6
Infectious Hospital ...	12	0	12

Number of Special Inmates.

	Persons.	Males.	Females.
Workhouse	679	391	288
Borough Asylum	497	230	267
General Infirmary	172	99	73
County Asylum	447	214	233
H.M. Prison	151	137	14
Infectious Hospital ...	30	15	15

26 persons are returned as living on 9 inland barges and boats at the date of the 1891 Census.

Summary as to occupations of Males and Females aged 10 years and upwards, in the County Borough of Leicester.

		Males.	Females.
I.	Professional Class	2066	1748
II.	Domestic Class	479	6880
III.	Commercial Class	6637	265
IV.	Agricultural and Fishing Class	1013	22
V.	Industrial Class	42828	25573
VI.	Unoccupied Class	8715	36318

These occupations may be further subdivided as follows:—

I. PROFESSIONAL CLASS :—

Civil Service	247	15
Police	162	0
Other Local Government Officers ...	96	16
Army (*at home*)	38	0
Navy (*ashore*)	1	0
Clerical Profession (including Nuns, etc.)	177	42

Legal Profession	217	1
Medical Profession	80	1
Dentists, Veterinary Surgeons	35	0
Nurses, Midwives, etc.	1	367
Subordinate Medical Service	24	3
Teachers	266	787
Students (14 years and over)	200	325
Literary and Scientific	42	3
Engineers and Surveyors	46	0
Artists (Musicians, etc.)	373	170
Performers, Showmen, etc.	61	18
II. DOMESTIC CLASS :—		
Domestic Servants (indoor)	114	5157
Inn and Hotel Servants	184	276
Charwomen	0	538
Others engaged in service	181	909
III. COMMERCIAL CLASS :—		
Merchants, Agents, etc.	276	7
Auctioneers, House Agents, etc.	67	2
Accountants	46	0
Commercial Travellers	489	3
Dealers in Money (Bankers, etc.)	100	0
Others	1495	93
Railway Engine Drivers and Stokers	203	0
Railway Guards	67	0
Railway Porters and Servants	490	0
Other Railway Officials	240	0
Livery Stable Keepers	76	0
Coachmen, etc.	746	0
Tramway Service	99	0
Telegraph and Telephone Services	69	2
Others	2174	158
IV. AGRICULTURAL AND FISHING CLASS :—		
Farmers, Graziers, and Relatives	67	4
Agricultural Labourers	325	3

Shepherds	11	0
Others engaged in connection with woods, animals, agriculture and gardens	610	15
V. INDUSTRIAL CLASS:—		
Printers	576	29
Bookbinders	95	88
Publishers, Newsagents, etc.	109	35
Lithographers	81	1
Engine and Machine Makers	233	11
Boiler Makers	65	0
Needle Makers	77	3
Cutlers and Scissors Makers	54	0
Watchmakers and Clockmakers	108	0
Others connected with Machines and Implements	672	11
Builders	239	2
Carpenters and Joiners	1076	1
Bricklayers	1203	0
Plumbers	241	1
Painters and Glaziers	725	0
Cabinet Makers, Upholsterers, etc.	427	53
Others connected with Houses, Furniture, and Decorations	634	13
Coach, carriage, cycle, and harness makers	585	8
Connected with Ships and Boats	6	1
Chemists and Druggists	221	5
Others connected with chemicals	46	16
Tobacco Manufacturers and Tobacconists	198	906
Pipe, Snuff Box, etc., Makers	6	0
Hotel Keepers and Publicans	296	67
Lodging House Keepers	11	128
Brewers and Beer Sellers	183	45
Wine and Spirit Merchants and Agents	24	1
Milk Sellers and Dairymen	181	28
Butchers and Meat Salesmen	677	31

Fishmongers and Poulterers	214	26
Bakers	504	27
Confectioners	201	179
Greengrocers and Fruiterers	186	96
Grocers, Tea Dealers	810	355
Others connected with Food and Lodgings	421	58
Woollen Cloth Manufacturers	280	505
Others connected with Wool and Worsted	237	438
Manufacturers connected with Silk	19	66
Cotton, Cotton Goods Manufacturers	37	279
Rope, Twine, Cord Makers	72	1
Weavers, Dyers, Bleachers, etc.	240	30
Drapers and Linen Drapers	357	296
Others connected with Cotton, Flax, Hemps, etc.	155	265
Hatters and Hat Manufacturers	154	166
Tailors	819	879
Milliners, Dressmakers, etc.	41	2737
Hosiery Manufacturers and Haberdashers	4286	8381
Shoe, Boot, Patten, Clog Makers	16839	7320
Others connected with Dress	401	501
Curriers, Leather Dealers, etc.	324	16
Other Dealers in Animal Substances	118	34
Indiarubber, Waterproof, Workers	653	257
Willow, Cane, Rush, and Basket Makers	108	8
Wooden Box Makers and Wood Turners	175	30
Stationers (including law)	41	28
Paper Box and Bag Makers	68	513
Others connected with Vegetable Substances	333	26
Those connected with Coal, Coal Gas, etc., including Gas Works Service	515	3
Those connected with Stone, Clay, and Road Making	548	0
Goldsmiths, Silversmiths, and Jewellers	39	3
Workers and Dealers in Iron and Steel	1121	9
Workers and Dealers in Tin	108	0

Others connected with Mineral Substances	166	22
General Shop Keepers and Dealers ...	177	175
Pawnbrokers	147	5
Costermongers, Hawkers, etc.... ...	227	62
General Labourers	1617	1
Miscellaneous Industrial Occupations ...	1021	292
VI. UNOCCUPIED CLASS :—		
Retired from Business (not Army, Navy, Church, Medicine)	1177	593
Pensioners	68	5
Living on Own Means	409	2072
Others (over 10 years) of unspecified occupations	7061	33648

Though the above statistics are interesting, they are not trustworthy, owing to the inaccurate and inadequate manner in which uneducated, and often, indeed, educated, persons describe their callings. We must allow a considerable margin for error.

HOUSES.

At the time of the Census there were 35705 inhabited, and 1628 uninhabited, houses in Leicester, whilst 352 were in process of building. The average number of occupants to each inhabited house was 4·89 against 4·93 in 1881. The tendency has been, therefore, in the direction of diminished overcrowding; and this is true too of all the large Towns* with more than 100,000 inhabitants (see the following table).

Towns.	Population per inhabited house.	
	1881.	1891.
England and Wales ...	**5·38**	**5·32**
Birmingham	5·12	5·01
Blackburn	5·18	4·91
Bolton	5·04	4·89

---

* Newcastle-upon-Tyne and Norwich alone shew an *increase* in the proportion of occupants to each inhabited house during the 10 years 1881-91.

Bradford	4·88	4·72
Brighton	6·20	5·93
Bristol	6·45	6·27
Cardiff	6·79	6·30
Croydon	5·73	5·43
Hull	4·77	4·71
Leeds	4·76	4·71
Leicester	4·93	4·89
Liverpool	5·99	5·68
London	7·84	7·72
Manchester	5·09	5·04
Newcastle-upon-Tyne	7·17	7·33
Norwich	4·45	4·53
Nottingham	4·84	4·65
Oldham	4·94	4·78
Portsmouth	5·64	5·43
Preston	4·96	4·82
Salford	5·15	5·06
Sheffield	4·96	4·86
Sunderland	7·24	7·00
West Ham	6·73	6·39

TENEMENTS.

A "tenement" is defined in the Census Instructions as "any house or part of a house separately occupied either by the owner or by a tenant." It appears, however, that this term "tenement" has been the cause of much confusion, *e.g.*, house and tenement are used as equivalent terms; some have used the word "tenement" as equivalent to each separate room in a common lodging house; etc. The terms "house" and "room" have also been elastically used in the Census Returns, so that the details now about to be tabulated are not altogether trustworthy. The total number of tenements returned in the Borough of Leicester was 36,147, particulars of which are as follows :—

Total No. of Tenements in Borough of Leicester.	No. of Tenements with		Number of Occupants of Tenements.											
			1	2	3	4	5	6	7	8	9	10	11	12 or more
36147.	1 Room	113	64	30	7	6	2	2	...	1	...	1	...	...
	2 Rooms	2378	388	835	528	340	162	85	28	10	1	1	...	...
	3 Rooms	1125	46	283	244	198	161	93	53	35	8	1	2	1
	4 Rooms,	5426	154	919	1157	1055	805	589	386	213	92	38	14	4

i.e., 9042 tenements with less than five rooms.

80·48 per cent. of the population lived in tenements of more than four rooms, and only ·12 per cent. lived in single roomed tenements (See Table, page 125).

From the fifth column (table on page 125) it will be seen that the fewer the rooms in the tenements, the larger the proportion of occupants per room; whilst the averages of 1·85 and 1·39 occupants per room respectively in one-and two-roomed tenements suggests overcrowding. To form some idea of the amount of this overcrowding in Leicester at the particular date of the Census (accepting as overcrowded any tenements which have more than two occupants per room, bedbrooms and sitting rooms included) a few calculations require to be made. We must exclude all one-roomed tenements with not more than two occupants, all two-roomed tenements with not more than four occupants, all three-roomed tenements with not more than six occupants, and all four-roomed tenements with not more than eight occupants; leaving, in this way, 554 tenements of fewer than five rooms a piece, in each of which there were more than two inhabitants per room, *i.e.*, 554 overcrowded tenements. In these 554 overcrowded tenements dwelt 3877 persons, *i.e.*, 2.2 % of the total population was living in a state of overcrowding (the average number of persons per room being 2·6). Though this state of affairs in unsatisfactory in itself, *comparatively* Leicester has much to boast of, as the Table of the 33 Great Towns of the Registrar General's Returns shews (see page 126).

LEICESTER.

Tenements with	No. of Tenements.	Percentage of all Tenements.	Total Occupants.	Percentage of Population in each group of Tenements.	Average Occupants per room.	OVERCROWDING.		
						No. of one to four-roomed Tenements with mere than two occupants per room.	Number of Occupiers of such Tenements.	Percentage of Population in each Tenements.
1 room	113	·3	209	·12	1·85	19	85	·048
2 rooms	2378	6·6	6617	3·79	1·39	287	1615	·982
3 rooms	1125	3·2	4266	2·41	1·26	100	767	·439
4 rooms	5426	15·0	23058	13·20	1·06	148	1410	·807
5 or more rooms ...	27105	74·9	140474	80·48	...	...	...	...
Totals	36147	100·0	174624	100·00	...	...	...	...

Average of 4·8 persons to each tenement, and 1·01 tenements or distinct occupants to each inhabited house.

Proportion of Tenements of less than 5 rooms, average number of Persons per Room in such Tenements, and proportion of overcrowding (of excess being 2 persons per room) in England and Wales, London, and 32 of the largest Municipal Boroughs.

TOWNS.	Of 1000 Tenements of all kinds, the number of Tenements of				Average number of Persons per Room in Tenements of				OVERCROWDING.	
	1 room	2 rooms	3 rooms	4 rooms	1 room	2 rooms	3 rooms	4 rooms	No. of persons living more than 2 in a room.	Proportion per cent. of such persons to total population.
England and Wales	47	114	123	239	2·23	1·73	1·42	1·16	3,258,044	11·23
Gateshead	102	370	231	153	3·33	2·26	1·69	1·34	34,943	40·78
Newcastle	132	304	208	146	3·16	2·24	1·62	1·32	65,347	35·08
Sunderland	91	292	281	123	2·62	2·12	1·62	1·31	43,038	32·85
Plymouth	244	270	137	81	2·39	1·87	1·50	1·21	22.128	25·27
Halifax	54	272	191	171	2·34	1·85	1·47	1.21	19,147	21·31
Bradford	25	185	308	196	2·47	1·90	1·50	1·23	44,598	20·61
Huddersfield ...	50	206	269	185	2·64	1·89	1·47	1·20	18,978	19·89
London	184	202	163	123	2·24	1·82	1·45	1·29	830,182	19·71
Leeds	14	176	218	259	2·78	1·80	1·46	1·20	60,482	16·46
Birmingham... ...	14	43	369	156	1·68	1·61	1·52	1·21	68,221	14·27
Burnley	24	90	66	534	2·63	1·86	1·48	1·18	11,089	12·74
Sheffield	6	67	239	248	2·28	1·68	1·52	1·16	37,552	11·58
Bolton	2	87	40	563	2·21	1·80	1·52	1·18	12,904	11·22
Liverpool	77	108	126	177	2·29	1·78	1·56	1·21	56,765	10·96
Oldham	7	83	24	650	2·58	1·71	1·33	1·18	13,315	10·13
Salford	23	104	39	390	2·19	1·81	1·50	1·18	18,603	9·39
West Ham	53	97	193	211	1·94	1·55	1·39	1·25	19,136	9·34
Wolverhampton ...	3	89	86	341	2·35	1·78	1·51	1·24	7.692	9·31
Swansea	27	131	73	262	1·91	1·62	1·40	1·26	8,355	9·25
Manchester	15	97	52	390	2·30	1·72	1·46	1·17	41,718	8·25
Bristol	89	153	130	123	1·81	1·44	1·32	1·21	17,784	8·03
Hull	24	87	120	341	2·20	1·48	1·30	1·11	15,728	7·86
Blackburn	3	24	16	596	2·80	1·58	1·23	1·14	8,463	7·05
Birkenhead	53	77	60	198	2·10	1·63	1·52	1·19	6,788	6·80
Norwich	21	79	85	155	1·62	1·32	1·27	1·06	4,960	4.91
Brighton	95	114	84	108	1·64	1·37	1·21	1·14	5,284	4·56
Cardiff	22	141	77	119	1·70	1·39	1·37	1·21	5,561	4·31
Preston	5	27	53	374	1·58	1·37	1·40	1·07	4,444	4·13
Nottingham	9	35	130	146	2·04	1·27	1·25	1·04	7,740	3·62
Croydon	36	50	50	110	1·69	1·40	1·19	1·14	2,830	2·76
Derby	4	38	40	170	1·93	1·32	1·31	1·08	2,535	2·69
Leicester	3	66	31	150	1·85	1·39	1·26	1·06	3,880	2·22
Portsmouth	40	75	60	102	1·48	1·16	1·10	1·00	2,772	1·74

It will be seen that Leicester ranks lowest but one as regards the per centage of the population living in an overcrowded state—the numbers ranging from Gateshead, Newcastle-on-Tyne, Sunderland, Plymouth, Halifax, Bradford, with respective per-centages of 40·78, 35·08, 32·85, 26·27, 21·31, 20·61, to Preston, Nottingham, Croydon, Derby, Leicester, Portsmouth, with, 4·13, 3·62, 2·76, 2·69, 2·22, 1·74, respectively. These facts are difficult of explanation, viz. : as to why Towns apparently existing under similar conditions should vary so much as to their overcrowding.

A few details as to the relation between, and the bearings upon one another of, the County Borough and the administrative County of Leicester may be of interest, and are accordingly added in the Tables below ; as also are a few facts for reference and comparison concerning England and Wales, London, and the British Empire.

Administrative County and County Borough.

	Area in Statute Acres.	HOUSES.			POPULATION.		
		Inhabited.	Un-inhabited.	Bnilding.	Persons.	Males.	Females.
Administrative County	520,400	43,327	3545	212	200,468	98,268	102,200
County Borough of Leicester	8.586	35,705	1628	352	174,624	82,441	92,183
Administrative County and County Borough	528,986	79,032	5173	564	375,092	180,706	194,383

In the Borough 35,705 inhabited houses represent 36,147 families.

In the Administrative County 43,327 inhabited houses represent 43,824 families.

CENSAL POPULATIONS.

	Ancient County of Leicester.	Extended Borough of Leicester (estimated and and enumerated).
1801	130,082	
1811	150,559	
1821	174,571	
1831	197,003	
1841	215,867	**53,537*
1851	230,308	*63,487*
1861	237,412	*71,286*
1871	269,311	*99,622*
1881	321,430	136,593
1891	373,584	174,624

* The numbers italicised are estimated approximately.

	Area.	Population	Decennial Increase per cent.
British Empire (including Colonies and Dependencies.)	10,868,365 square miles.	371,825,244	—
United Kingdom	121,069 square miles.	37,732,922	8·2
England and Wales	37,317,885 acres.	29,002,525	11·65
London	74,672 acres.	4,211,743	10·4

There are 468 parliamentary areas in England and Wales, with an enumerated population of 29,002,525 and 490 Members of Parliament (irrespective of the Universities). This gives an average of one M.P. to every 59,189 persons. In Leicester the average is one M.P. to 71,023.

RULES FOR INFECTIOUS DISEASES

(lately revised and adopted by the School Board of Leicester).

No child is allowed to attend School if he or she has any of the following Diseases—namely : Small-pox, Scarlet Fever, Typhoid Fever, Diphtheria, Hooping Cough, Chicken-pox, Measles, Mumps, Ringworm, Itch, or other Infectious Diseases.

A child who has been ill with Small-pox, Scarlet Fever, or Typhoid, may not return to School for at least six weeks from the time of falling ill, unless a certificate is brought from the Medical Officer of Health, stating that it is safe for him or her to do so.

A child living in a house where there is either Small-pox, or Scarlet Fever, or Typhoid, must not be allowed to attend School until a certificate is brought from the Medical Officer of Health, declaring it to be safe for him or her to do so.

A child who has been ill with Diphtheria may not return to School for at least four weeks from the time of falling ill, unless a certificate is brought from the Medical Officer of Health, stating that the child is well, and may safely attend School.

A child living in a house where there is Diphtheria will not be allowed to attend School until a certificate is brought from the Medical Officer of Health, declaring it to be safe for him or her to do so.

A child who has been ill with Hooping Cough may not return to School until two weeks after the disease has ceased.

A child living in a house where there is Hooping Cough, but who has not had the disease, shall not be permitted to return to School until the expiration of three weeks, and then only provided the Head Teacher is satisfied the child is free from cough.

A child who has been ill with Chicken-pox, Measles, or Mumps, may not return to School for at least three weeks from the time of falling ill.

A child living in a house where there is Measles may not attend School during the time the complaint continues, nor until three weeks after the recovery of the last case.

A child who has been away from School with Ringworm or Itch must bring a Medical Certificate to the effect that the disease is cured.

After absence from School on account of illness, the Head Teacher should make enquiries as to the nature of the illness, and in doubtful cases, may require the production of a Medical Certificate stating that the child may be re-admitted without danger to the other children.

A young teacher or child sent to enquire after an absentee, must be *forbidden* from entering the house ; and if provided this instruction is carried out, there is no reason why enquiries should not be made in this manner in many cases.

Where there is reason for suspecting that a child is absent because of some infectious disease, enquiries should only be made through the School Attendance Officers.

SUGGESTIONS FOR GUIDANCE OF TEACHERS IN CASES OF INFECTIOUS DISEASES.

Symptoms of Infectious Diseases.—Most of these maladies are attended by the appearance of a rash upon the skin, but this eruption does not at once show itself. The child may ail for a day or two first, and the rash not make its appearance until later. But even before the rash shows itself, there are usually certain symptoms present which should give rise to suspicion on the part of the teacher, and these indicate the need for watchfulness over the child.

A child sickening for an infectious disease often complains of headache, or of sore throat, or of simply feeling ill. The first noticeable sign may be a shivering fit or an attack of sickness.

Common symptoms of the disease to which attention should be directed are :

SCARLET FEVER (SCARLATINA).—The child feels ill, shivers, has sore throat, which is followed usually about twenty-four hours from the beginning of the illness by the appearance of a scarlet rash on the chest, and which often extends over other parts of the body and the limbs. The tongue is often furred, and the papillæ are large and red, throat is red, and the rash may consist of a uniform blush, or of a number of red spots. During the later stages of Scarlet Fever there is a peeling or shedding of the skin. Whenever this condition is present the child should be sent home and kept away from School, unless a medical man reports that there is no danger.

DIPHTHERIA.—This affection often comes on less suddenly and severely than scarlet fever. There is, as a rule, no eruption on the skin, but one or more white patches may appear on the back of the throat, on the soft palate, or on the tonsils. These white patches are not always visible, but the case is none the less dangerous.

All cases of sore throat should be carefully watched in connection with outbreaks of diphtheria.

MEASLES.—This disease makes its appearance in the same manner as a severe cold, the child becoming ill and shivering, sneezing, and having a running from the eyes and nose, and often a sore throat. An eruption appears later, usually after the child has been ill three days. It consists of a number of raised red spots upon the face, chest, and often on other parts of the body and the limbs, usually arranged in a crescentic form. The symptoms of German measles, however, are somewhat different, and there is an absence generally of the indications of a severe cold.

SMALL-POX.—This illness usually begins with shivering, vomiting, headache, pains in the limbs, and particularly in the back. After the child has been ill two days, a pimply eruption appears upon the face, chest, wrists, and often on other parts of the body. A little later the pimples become watery, and have a depression in their centre, later still the eruption becomes mattery, and a scab forms on each pimple. In mild cases there may be only a few points of eruption present. The child is not free from infection until all the scabs have been shed.

CHICKEN-POX.—The child is ill for a few hours, usually twenty-four, and a number of glistening watery pimples appear on the face, chest, and often on other parts of the body and the limbs. The whole of the eruption does not come out at once, but usually appears in successive crops. The eruption scabs over in a day or two. and the child is not free from infection until all the scabs have disappeared.

HOOPING COUGH.—The child has a severe cough, which comes on in paroxysms, and it coughs till it is out of breath. After some days' illness, the crowing noise or "hoop," which is characteristic of this disease is heard; this sound being produced by the child drawing in its breath at the end of a paroxysm of coughing.

MUMPS.—The child becomes ill and feverish, and at the end of a few days complains of aching of the jaw. A swelling then appears on the side of the face, lasting for more than a week.

TYPHUS FEVER.—This disease is now seldom seen in England. The child becomes ill, shivers, and complains of severe headache. After a few days, a rather indistinct, dark, mottled eruption appears on the abdomen, and often on the wrists and other parts of the body.

DIARRHŒA AFFECTIONS.—These cases should be very carefully watched, especially as typhoid fever often begins in this way. If children suffer from this ailment in the School, attention of the Caretaker should be particularly called to the regulation relating to his work of cleansing and disinfecting the w.c.s.

Any child showing symptoms of an infectious disease, such as bad cold with redness and dullness of the eyes ; or any child coming from a house where an infectious disease is suspected, must be sent home at once, and the School Attendance Officer must be immediately advised (on form provided) of the case, in order that enquiries may at once be made as to the nature of the illness, with a view to prevent children living in the house from attending School.

Class Teachers must be instructed to report to the Head Teacher any doubtful case of cough, and if Hooping Cough be suspected, the child must be at once sent home with a request that the parents or guardian will report in a few days on the health of the child.

In all cases of exclusion on account of Small Pox, Scarlet Fever, Measles, Typhoid Fever, Diphtheria, and Chicken-pox, names and addresses of the children must be at once sent (on form provided) to the Medical Officer of Health, Town Hall, and the same must be done in respect of doubtful cases which may come to the knowledge of the Head Teachers.

The School Attendance Officers must report at once to the Medical Officer of Health (on forms provided) all cases of infectious disease, and also doubtful cases which may come to their knowledge.

Great care must be taken to prevent the circulation of Library Books in houses or amongst children where any infectious disease exists. When however it is found that books have been exposed to infection, either of Scarlet-Fever or Small-pox, they must not be taken back into School, but the circumstances reported to the office.

By order of the Board,
THOMAS GROVES,
Clerk.

Localities in which Deaths from Zymotic Diseases have occurred in 1894. Arranged into Wards and Streets.

DIARRHŒA.

WARD I.

	No of Deaths.
Charles Street	1
Granby Street	1
Redcross Street	1
Thornton Lane	1
Yeoman Street	1
Total	5

WARD II.

	No. of Deaths.
All Saints' Road	2
Durham Street	1
East Bond Street	1
Frog Island	2
Fuller Street	1
Harding Street	1
Heanor Street	1
Henry Street	1
Jewry Wall Street	1
Johnson Street	1
Northgate Street	4
Pingle Street	1
Ruding Street	1
Sanvey Gate	1
Swan Street	1
St. Margaret Street	1
Vine Street	1
Total	22

WARD III.

	No. of Deaths.
Archdeacon Lane	1
Barston Street	1
Belgrave Road	1
Bruin Street	1
Church Gate	3
Devonshire Street	2
Gold Street	1
Hull Street	1
Kensington Street	1
Navigation Street	2
New Lane	1
Pares Street	1
Queen Mary Street	1
Royal East Street	1
Total	18

WARD IV.

	No. of Deaths.
Alfred Street	2
Bedford Street	2
Belgrave Gate	2
Benford Street	2
Brook Street	1
Brunswick Street	1
Carley Street	1
Chester Street	1
Christow Street	2
Eldon Street	1
Fleet Street	2
Gladstone Street	1
Grosvenor Street	1
Grove Street	1
Junction Road	2
Kenyon Street	2
Liverpool Street	1
Percy Street	1
Russell Square	1
St. Mark Street	1
Upper Hill Street	2
Woodboy Street	2
Total	32

WARD V.

	No. of Deaths.
Argyle Street	1
Birstall Street	2
Burfield Street	2
Cobden Street	1
Cranbourne Street	1
Dorset Street	1
Gresham Street	1
Palmerstone Street	3
Stanley Street	1
Willow Bridge Street	1
Willow Street	1
Total	15

WARD VI.

	No. of Deaths.
Cecil Road	1
Clipstone Street	1
Garendon Street	1
Guthlaxton Street	1
Kent Street	1
Melbourne Road	1
Morledge Street	1
Stoughton Street	1
Walter Street	1
Waring Street	3
William Street	1
Total	13

WARD VII.

	No. of Deaths.
Colton Street	1
Gartree Street	1
Highfield Street	1
Oxendon Street	1
Union	1
Total	5

WARD VIII.

	No. of Deaths.
Albion Street	2
Chatham Street	1
Elton Street	1
Total	4

DIARRHŒA.—continued.

WARD IX.	No. of Deaths.
Albert Street ...	1
Cardigan Street ...	1
Deacon Street ...	2
Filbert Street ...	1
Grange Lane ...	1
Gray Street	2
Havelock Street ...	1
Knighton Street ...	2
Mill Lane	1
Welford Road ...	1
Total ...	13

WARD X.	
Buckingham Street	1
Corah Street ...	1
Coventry Street ...	1
Foxon Street ...	1
Gerrard Street ...	1
New Park Street ...	1
Norfolk Street ..	1
Thorpe Street ...	1
Total ...	8

WARD XI.	
Abbey Gate	2
Dannett Street ...	1
Littleton Street ...	2
Newport Street ...	1
Rowan Street ...	3
Wolsey Street ...	1
Total ...	10

WARD XII.	No of Deaths.
Beaumanor Road ...	1
Evans Street ...	1
Justice Street ...	1
Total ...	3

WARD XIII.	
Ash Street	1
Brighton Road ...	1
Charnwood Street ...	1
Dover Road	2
Edwyn Street ...	1
Hartington Road ...	1
Sherrard Road ...	2
St. Saviour's Road ...	1
Victoria Road ...	1
Total ...	11

WARD XIV.	
Beaumont Road ...	1
Darley Street ...	1
Frederick Road ...	1
Mere Road	2
Total ...	5

WARD XV.

Nil.

WARD XVI.	No. of Deaths.
Grace Road	1
Harold Street ...	1
Holywell Road ...	2
King Richard's Road	1
Lansdowne Road ...	1
Milligan Road ...	1
Richmond Road ...	1
Sherridan Street ...	2
Vernon Road ...	2
Total ...	12

TOTALS.	
Ward I.	5
Ward II.	22
Ward III.	18
Ward IV.	32
Ward V.	15
Ward VI.	13
Ward VII.	5
Ward VIII.	4
Ward IX.	13
Ward X.	8
Ward XI.	10
Ward XII.	3
Ward XIII.	11
Ward XIV.	5
Ward XV. ...	Nil
Ward XVI.	12
Total ...	176

WHOOPING COUGH.

WARD I.	No. of Deaths.
Nil.	

WARD II.	
Friars Causeway ...	1
Frog Island	1
New Pingle Street ...	1
Total ...	3

WARD III.	No. of Deaths.
Mansfield Street ...	1
Total ...	1

WARD IV.

Nil,

Ward V.	No. of. Deaths
Belper Street ...	1
Dorset Street ...	1
Total ...	2

WARD VI.	
Graham Street ...	1
Total ...	1

WHOOPING COUGH.—continued.

	No. of Deaths.
Ward VII.	
Skipworth Street ...	1
Total ...	1
WARD VIII.	
Nil.	
WARD IX.	
Nil.	
WARD X.	
Andrew Street ...	1
Total ...	1
WARD XI.	
Nil.	

	No. of Deaths.
WARD XII.	
Claremont Street ...	1
Thurcaston Road ...	1
Total ...	2
WARD XIII.	
Nil.	
WARD XIV.	
Bartholomew Street	1
Total ...	1
WARD XV.	
Nil.	
WARD XVI.	
Nil.	

TOTALS.	No. of Deaths.
Ward I. ...	Nil
Ward II. ...	... 3
Ward III. ...	... 1
Ward IV. ...	Nil
Ward V. ...	... 2
Ward VI. ...	... 1
Ward VII. ...	... 1
Ward VIII. ...	Nil
Ward IX. ...	Nil
Ward X. ...	... 1
Ward XI. ...	Nil
Ward XII. ...	... 2
Ward XIII. ...	Nil
Ward XIV. ...	... 1
Ward XV. ...	Nil
Ward XVI. ...	Nil
Total	... 12

DIPHTHERIA.

	No. of Deaths.
WARD I.	
Nil	
WARD II.	
Nil.	
WARD III.	
Nil.	
WARD IV.	
Nil.	
WARD V.	
Brandon Street ...	1

	No. of Deaths.
Dorset Street ...	1
Rudkin Street ...	1
Total ...	3
WARD VI.	
Melbourne Road ...	1
Upper Conduit Street	1
Total ...	2
WARD VII.	
Nil.	
WARD VIII.	
Nil.	

	No. of Deaths.
WARD IX.	
Nil.	
WARD X.	
Nil.	
WARD XI.	
Oban Street ...	... 1
Total	... 1
WARD XII.	
Elmdale Street	... 1
Total	... 1

DIPHTHERIA.—continued.

WARD XIII.

Nil.

WARD XIV.

	No. of Deaths.
Grove Road ...	1
Total ...	1

WARD XV.

Nil.

WARD XVI.

	No. of Deaths.
Knighton Fields Road	1
Knighton Lane ...	1
Narborough Road ...	1
Sherridan Road ...	1
Total ...	4

TOTALS.

	No. of Deaths.
Ward I. ...	Nil
Ward II. ...	Nil
Ward III. ...	Nil
Ward IV.	Nil
Ward V. ...	... 3
Ward VI. ...	... 2
Ward VII. ...	Nil
Ward VIII. ...	Nil
Ward IX. ...	Nil
Ward X. ...	Nil
Ward XI. ...	... 1
Ward XII. ...	... 1
Ward XIII. ..	Nil
Ward XIV. ...	... 1
Ward XV. ...	Nil
Ward XVI. ...	... 4
Total	... 12

TYPHOID FEVER.

WARD I.

	No. of Deaths.
Lower Free Lane ...	1
Rutland Street ...	1
Total ...	2

WARD II.

	No. of Deaths.
Northgate Street ...	1
Ruding Street ...	1
Total ...	2

WARD III.

	No. of Deaths.
Archdeacon Lane ...	2
Caroline Street ...	1
Navigation Street ...	1
Total ...	4

WARD IV.

	No. of Deaths.
Carley Street ...	1
Neale Street ...	1
Pike Street	1
Total ..	3

WARD V.

	No. of Deaths.
Bardolph Street ...	1
Burfield Street ...	1
Dorset Street ...	1
Martin Street ...	2
Palmerstone Street ...	1
Syston Street ...	1
Total ...	7

WARD VI.

	No. of Deaths.
Guthlaxton Street ...	1
Waring Street ...	1
Upper Charnwood St.	1
Total ...	3

WARD VII.

	No. of Deaths.
Queen Street ...	1
Union	4
Total ...	5

WARD VIII.

Nil.

WARD IX.

Nil.

WARD X.

Nil.

WARD XI.

Nil.

WARD XII.

Nil.

WARD XIII.

	No. of Deaths.
Morton Road ...	1
Total ...	1

WARD XIV.

Nil.

TYPHOID FEVER.—continued.

WARD XV.

Nil.

WARD XVI.

Nil.

TOTALS.

	No. of Deaths.
Ward I.	2
Ward II.	2
Ward III.	4
Ward IV.	3
Ward V.	7
Ward VI.	3
Ward VII.	5
Ward VIII. ...	Nil
Ward IX. ...	Nil
Ward X. ...	Nil
Ward XI. ...	Nil
Ward XII. ...	Nil
Ward XIII.	1
Ward XIV. ...	Nil
Ward XV. ...	Nil
Ward XVI. ...	Nil
Total ...	27

SCARLET FEVER.

WARD I.

	No. of Deaths.
Thornton Lane ..	1
Total ...	1

WARD II.

	No. of Deaths.
Heanor Street ...	1
Olive Street	2
Sarah Street ...	2
Total ...	5

WARD III.

	No. of Deaths.
Friday Street ...	1
Sandacre Street ...	1
Watling Street ...	1
Total ...	3

WARD IV.

	No. of Deaths.
Liverpool Street ...	1
Milton Street ...	2
Wharf Street ...	1
Total ...	4

WARD V.

	No. of Deaths.
Brierly Street ...	2
Curzon Street ...	1
Gresham Street ...	1
Syston Street ...	1
Total ...	5

WARD VI.

	No. of Deaths.
Porter Street ...	1
Upper Conduit Street	1
Upper Kent Street ...	1
Total ..	3

WARD VII.

Nil.

WARD VIII.

Nil.

WARD IX.

Nil.

WARD X.

	No. of Deaths.
Great Holme Street	1
Livingstone Street ...	1
Total ...	2

WARD XI.

Nil.

WARD XII.

	No. of Deaths.
Flax Road	1
Total ...	1

WARD XIII.

	No. of Deaths.
Ash Street	1
Farringdon Street ...	1
Total ...	2

WARD XIV.

	No. of Deaths.
Laurel Road .	1
Mere Road	1
Total ...	2

WARD XV.

Nil.

WARD XVI.

	No. of Deaths.
Lansdowne Road ...	1
Saffron Hill Road ...	1
Total ...	2

TOTALS.

	No. of Deaths.
Ward I.	1
Ward II.	5
Ward III.	3
Ward IV.	4
Ward V.	5
Ward VI.	3
Ward VII. ...	Nil
Ward VIII. ...	Nil
Ward IX. ...	Nil
Ward X.	2
Ward XI. ...	Nil
Ward XII.	1
Ward XIII.	2
Ward XIV.	2
Ward XV. ...	Nil
Ward XVI.	2
Total ...	30

MEASLES.

WARD I.

	No. of Deaths.
Granby Street	1
Humberstone Gate	1
Thornton Lane	1
Total	3

WARD II.

Blackfriars Street	1
Birkley Street	1
Canning Street	1
Lower Church Gate	1
Northgate Street	1
Pasture Lane	1
Ruding Street	1
Vine Street	1
Total	8

WARD III.

Belgrave Gate	1
Charlotte Street	1
Friday Street	1
Harcourt Street	1
Navigation Street	2
Queen Street	1
Sandacre Street	3
Wand Street	1
Westbourne Street	1
Total	12

WARD IV.

Belgrave Gate	1
Brittannia Street	1
Brook Street	4
Crafton Street	1
Curzon Street	1
Eaton Street	1
Grosvenor Street	2
Lee Street	2
Lower Grove Street	1
Palmerstone Street	1
Rodney Street	1
Russell Street	2
St. Marks Street	1
Woodboy Street	1
Total	20

WARD V.

	No. of Deaths.
Bardolph Street	1
Belgrave Road	2
Belper Street	1
Brandon Street	1
Birstall Street	1
Dorset Street	3
Gresham Street	2
Martin Street	2
Syston Street	1
Willow Bridge Street	1
Willow Street	3
Total	18

WARD VI.

Nil.

WARD VII.

Union	3
Total	3

WARD VIII.

Calais Street	1
Marlborough Street	1
Total	2

WARD IX.

Deacon Street	2
Oxford Street	2
Total	4

WARD X.

Coventry Strees	1
Cranmer Street	1
Hinckley Road	1
Latimer Street	1
Leamington Street	2
Luther Street	1
Ridley Street	1
West Holme Street	1
Total	9

WARD XI.

	No. of Deaths.
Carlisle Street	1
Harrison Street	1
Hawthorne Street	1
Pool Road	1
Wolsey Street	1
Woodgate	1
Total	6

WARD XII.

Corporation Road	1
Duke Street	1
Harrison Road	2
Holden Street	1
Lexham Street	1
Malt Office Lane	1
The Green	1
Vann Street	1
Total	9

WARD XIII.

Dover Road	1
Elm Street	2
Flint Street	1
Mornington Street	2
Morton Road	1
Total	7

WARD XIV.

Darley Street	1
Florence Road	1
Total	2

WARD XV.

Avenue Rd. Extension	1
Stoughton Road	1
Total	2

WARD XVI.

Wordsworth Road	1
Total	1

MEASLES.—continued.

TOTALS.	No. of Deaths.		No. of Deaths.		No. of Deaths.
		Ward VI.	Nil	Ward XIII.	7
		Ward VII.	3	Ward XIV.	2
Ward I.	3	Ward VIII.	2	Ward XV.	2
Ward II.	8	Ward IX.	4	Ward XVI.	1
Ward III.	12	Ward X.	9		
Ward IV.	20	Ward XI.	6	Total	106
Ward V.	18	Ward XII.	9		

TABLE

Shewing number of Notified Cases of Infectious Diseases in 31 Great Towns of England and Wales during 1894.

Name of Town.	Estimated Population (middle 1894)	Small-Pox.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Typhus Fever.	Continued Fever.	Cholera.	Puerperal Fever.	Erysipelas.
Birkenhead ...	105,627	12	379	133	194	7	4	...	2	*
Birmingham ...	492,301	2074	1788	316	511	...	7	...	42	772
Blackburn ...	125,797	10	158	38	127	1	...	...	...	...
Bolton... ...	118,303	2	267	25	117	...	...	...	16	*
Bradford ...	223,985	196	1035	49	141	...	2	...	22	144
Bristol ...	226,578	201	490	118	90	...	1	...	18	154
Burnley ...	96,478	16	1070	70	121	1	...	...	6	94
Cardiff... ...	148,890	10	577	326	62	1	3	...	19	135
Croydon ...	111,921	6	298	161	57	...	2	...	3	*
Derby	98,796	4	513	46	104	...	...	...	7	...
Gateshead ...	93,372	14	274	73	113	...	21	...	7	83
Halifax ...	92,861	10	114	43	52	...	3	...	6	*
Huddersfield ...	98,511	5	462	36	31	1	1	...	2	8
Hull	212,679	36	736	87	223	...	22	...	21	218
‡Leeds ...	388,761	36	758	100	211	...	12	...	26	203
†Leicester ...	**189,136**	**9**	**855**	**66**	**215**	**0**	**0**	**0**	**6**	171
Liverpool ...	507,230	223	3971	276	1358	316	...	4	70	...
Manchester ...	520,211	282	2224	452	467	...	...	...	51	*
Newcastle ...	201,947	2	826	112	164	...	21	...	4	*
Norwich ...	105,645	1	547	120	149	1	1	...	13	*
Nottingham ...	223,584	57	1164	56	363	...	...	...	...	*
Oldham ...	138,755	165	264	67	69	...	...	...	9	*
Plymouth ...	87,931	27	182	54	38	...	...	...	4	137
Portsmouth ...	170,973	22	458	139	201	...	49	...	9	*
Preston ...	111,425	32	183	39	114	...	...	...	17	*
Salford ...	205,828	35	1043	203	316	1	14	...	21	130
Sheffield ...	338,316	8	832	95	347	...	18	...	45	360
Sunderland ...	136,101	8	706	23	588	10	80	...	12	...
Swansea ...	95,399	6	475	23	122	...	...	...	2	39
West Ham ...	238,184	509	844	628	169	3	10	...	12	*
Wolverhampton	85,036	68	1126	86	95	...	...	...	3	97

* Not Notifiable. † Representing Certificates.

‡ Notification Act came into force 1st May, 1894.

MORTALITY TABLES.

Deaths in the Borough of Leicester during the fifty-two weeks ending December 29th, 1894.

NOTE.—The deaths of non-residents occurring in Public Institutions situate in the Borough are excluded.

	0 to 1		1 to 5		Under 5		5-20		20-40		40-60		60-80		80 and upwards.		Over 5		All ages		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Class I.																					
SPECIFIC FEBRILE OR ZYMOTIC DISEASES.																					
1.—Miasmatic Diseases.																					
Small-pox — Vaccinated	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox — Unvaccinated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox — Not known	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox — Not stated	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	7	7	39	48	46	55	2	2	...	1	...	...	...	...	...	...	2	3	48	58	106
Scarlet Fever	...	...	12	8	12	8	4	5	...	1	...	...	...	...	...	...	4	6	16	14	30
Diphtheria	2	...	3	4	5	4	1	2	...	...	...	...	...	...	...	...	1	2	6	6	12
Whooping Cough	4	3	2	3	6	6	...	...	...	...	...	...	...	...	...	...	...	...	6	6	12
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric or Typhoid Fever	...	...	2	3	2	3	5	3	5	5	1	2	1	...	...	...	12	10	14	13	27
Simple Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Miasmatic Diseases	2	3	...	1	2	4	2	...	1	...	1	2	2	...	...	...	6	2	8	6	14
2.—Diarrhœal Diseases.																					
Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa	85	68	10	4	95	72	...	1	...	...	...	1	2	3	...	2	2	7	97	79	176
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3.—Malarial.																					
Ague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Remittent Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4.—Zoogenous Diseases.																					
Cowpox and Effects of Vaccination	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hydrophobia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Glanders	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Splenic Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

5.—Venereal Diseases.																					
Syphilis	7	4	……	……	7	4	……	……	1	……	……	……	1	……	……	……	2	……	9	4	13
Gonorrhœa, Stricture of Urethra	……	……	……	……	……	……	……	……	1	……	1	……	1	……	……	……	3	……	3	……	3
6.—Septic Diseases.																					
Erysipelas	1	……	……	……	1	……	1	……	1	1	……	……	2	1	……	……	4	2	5	2	7
Pyæmia	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……
Puerperal Fever	……	……	……	……	……	……	……	……	……	2	……	……	……	……	……	……	……	2	……	2	2
	108	85	68	71	176	156	15	13	9	10	3	5	9	4	……	2	36	34	212	190	402
Class II.																					
PARASITIC DISEASES.																					
Thrush and other Vegetable Parasitic Diseases	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……
Worms, Hydatids, and other Animal Parasitic Diseases	……	1	……	……	……	1	……	……	……	……	……	……	……	……	……	……	……	……	……	1	1
	……	1	……	……	……	1	……	……	……	……	……	……	……	……	……	……	……	……	……	1	1
Class III.																					
DIETIC DISEASES.																					
Want of Breast Milk, Starvation	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……
Purpura and Scurvy	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……
Alcoholism *a.* Delirium Tremens	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……
Alcoholism *b.* Intemperance	……	……	……	……	……	……	……	……	2	……	……	2	1	……	……	……	3	2	3	2	5
	……	……	……	……	……	……	……	……	2	……	……	2	1	……	……	……	3	2	3	2	5
Class IV.																					
CONSTITUTIONAL DISEASES.																					
Rheumatic Fever	……	……	……	……	……	……	……	1	3	……	……	……	……	……	……	……	1	3	1	3	4
Rheumatism	……	……	……	……	……	……	……	……	……	1	1	……	1	……	……	……	2	1	2	1	3
Gout	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……
Cancer, Malignant Disease	……	……	1	……	1	……	1	2	2	5	11	34	13	25	……	4	27	70	28	70	98
Cancrum Oris (Noma.)	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……	……

DEATHS (continued).

	0 to 1		1 to 5		Under 5		5-20		20-40		40-60		60-80		80 and upwards		Over 5		All Ages		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Rickets			2	1	2	1													2	1	3
Tabes Mesenterica	6	4	3	1	9	5													9	5	14
Phthisis	2	4	2	1	4	5	14	18	47	54	43	14	6	2			110	88	114	93	207
Hydrocephalus and Tubercular Meningitis	15	11	9	11	24	22	5	2	1	4				1			6	7	30	29	59
Other forms of Tuberculosis	11	1	2	1	13	2	4	3	3	2	1	3					8	8	21	10	31
Scrofula									1	1		1					1	2	1	2	3
Anæmia, Chlorosis, Leucocythæmia ...			2		2			1	1		1	1	1				3	2	5	2	7
Diabetes							2			2	3	3	2				7	5	7	5	12
Other Constitutional Diseases	6	6		1	6	7	1				1		1	1			3	1	9	8	17
	40	26	21	16	61	42	28	29	55	69	61	56	24	29		4	168	187	229	229	458
Class V.																					
LOCAL DISEASES.																					
1.—Diseases of Nervous System.																					
Inflammation of Brain or Membranes ...	2	1			2	1						1						1	2	2	4
Apoplexy, Softening of Brain, Paralysis...	1	1			1	1	2	1	6	2	21	16	34	36	2	5	65	60	66	61	127
Insanity, General Paralysis of Insane ...											2			1			2	1	2	1	3
Chorea																					
Epilepsy			1		1		2	2	1	1	1	3		1			4	7	5	7	12
Convulsions ... ... — ..	74	45	13	10	87	55	2										2		89	55	144
Laryngismus Stridulus	1				1														1		1
Diseases of Spinal Cord, Paraplegia, Paralysis Agitans	1				1					2		3						5	1	5	6
Other Diseases of Nervous System ...	1			1	1	1	1				3	2					4	2	5	3	8
2.—Diseases of Organs of Circulation.																					
Pericarditis and Endocarditis										2								2		2	2
Heart Disease	3	3	1	1	4	4	7	13	22	13	36	36	32	38	3	1	100	101	104	105	209
Aneurism									1		1						2		2		2
Embolism, Thrombosis												1		3				4		4	4
Other Diseases of Blood Vessels	1	1			1	1				1	3	4	1	2			4	7	5	8	13

3.—Diseases of Respiratory Organs.																					
Laryngitis	1	......	2	......	3	......	1	1	2	......	......	......	......	......	......	......	3	1	6	1	7
Bronchitis	60	56	35	22	95	78	3	......	4	7	13	13	35	46	1	5	56	71	151	149	300
Pleurisy	......	......	......	......	......	......	1	......	......	1	......	1	......	......	......	......	1	2	1	2	3
Pueumonia	22	16	17	12	39	28	7	2	17	9	13	12	5	7	......	......	42	30	81	58	139
Asthma and Emphysema	......	......	1	......	1	......	......	......	......	1	......	1	......	1	......	......	......	3	1	3	4
Croup	......	2	3	2	3	4	1	1	......	......	......	......	......	......	......	......	1	1	4	5	9
Other Diseases of Respiratory Organs ...	4	2	2	2	6	4	......	1	......	......	......	......	1	......	......	......	1	1	7	5	12
4.—Diseases of Digestive Organs.																					
Gastritis	5	2	......	......	5	2	......	......	......	2	2	1	......	......	......	1	2	4	7	6	13
Other Diseases of the Stomach	3	2	1	......	4	2	......	......	......	......	4	2	1	......	......	......	5	2	9	4	13
Enteritis	2	5	5	......	7	5	......	1	......	......	1	1	......	2	......	......	1	4	8	9	17
Peritonitis	6	11	1	2	7	13	1	3	3	4	1	3	......	......	......	......	5	10	12	23	35
Ascites	......	......	......	......	......	......	......	......	......	......	......	......	......	1	......	......	......	1	......	1	1
Obstructive Diseases of Intestines ...	......	2	......	......	......	2	1	......	1	1	6	2	1	6	3	1	12	10	12	12	24
Fistula	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Pancreas Diseases, etc.	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Cirrhosis of Liver	......	......	......	......	......	......	......	......	1	2	4	6	1	2	......	......	6	10	6	10	15
Jaundice and other Diseases of Liver ...	3	5	......	......	3	5	......	......	......	1	......	3	1	2	1	......	2	6	5	11	16
5.—Diseases of Urinary Organs.																					
Nephritis	3	......	......	1	3	1	1	......	......	1	4	1	3	1	......	......	8	3	11	4	15
Bright's Disease (Albuminaria)	......	......	......	......	......	......	2	1	4	4	4	4	5	......	......	......	15	9	15	9	24
Diseases of Bladder or Prostrate	......	......	......	......	......	......	......	......	......	......	3	......	3	1	1	......	7	1	7	1	8
Calculus (Stone)	......	......	......	......	......	......	1	......	......	......	......	2	1	......	......	......	2	2	2	2	4
Other Diseases of Urinrry System ...	1	......	......	......	1	......	1	......	5	1	4	2	2	......	......	......	12	3	13	3	16
6.—Diseases of Reproductive System.																					
(*a*) ORGANS OF GENERATION.																					
Male Organs	......	......	......	......	......	......	1	......	......	......	......	......	......	......	......	......	1	......	1	......	1
Female Organs	......	......	......	......	......	......	......	......	......	......	......	1	......	......	......	......	......	1	......	1	1

DEATHS (continued).

	0 to 1		1 to 5		Under 5		5-20		20-40		40-60		60-80		80 and upwards		Over 5		All Ages		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
(*b*) OF PARTURITION.																					
Abortion, Miscarriage										1		1						2		2	2
Puerperal Convulsions										4								4		4	4
Placenta Prævia, Flooding										1								1		1	1
Other Accidents of Childbirth									1	10		2						13		13	13
7.—Diseases of Integumentary System.																					
Phlegmon																					
Ulcer, Carbuncle			1		1						1						1		2		2
Other Diseases of Skin, etc.	4				4				1		1						2		6		6
8.—Diseases of Bones and Joints.																					
Caries and Necrosis																					
Arthritis, Ostitis, Periostitis	1				1							1						1	1	1	2
Other Diseases of Bones and Joints ...							3				1	1	1				5	1	5	1	6
9.—Diseases of Organs of Special Sense.																					
Ear, Eye, Nose							2						1	1			3	1	3	1	4
10.—Diseases of Lymphatic System, etc.																					
Lymphatics and Spleen																					
Bronchocele, Addison's Disease																					
Quinsy																					
	199	154	83	53	282	207	40	27	68	71	129	126	128	151	11	13	376	388	658	595	1253

Class VI.																					
DEVELOPMENTAL DISEASES.																					
Premature Birth	92	45	......	......	92	45	......	......	......	......	......	......	......	......	......	......	......	......	92	45	137
Atelectasis	5	1	......	......	5	1	......	......	......	......	......	......	......	......	......	......	......	......	5	1	6
Congenital Malformations...	3	2	......	......	3	2	......	......	......	......	......	......	......	......	......	......	......	......	3	2	5
Teething	9	6	4	1	13	7	......	......	......	......	......	......	......	......	......	......	......	......	13	7	20
Atrophy, Inanition, Debility	100	70	......	2	100	72	1	......	......	......	1	......	2	......	1	......	5	......	105	72	177
Old Age	......	......	......	......	......	......	......	......	......	......	......	......	42	65	25	31	67	26	67	96	163
	209	124	4	3	213	127	1	......	......	......	1	......	44	65	26	31	72	96	285	223	508
Class VII.																					
DEATHS FROM VIOLENCE.																					
1.—Accident or Negligence.																					
Fracture and Contusions	......	......	2	1	2	1	4	......	1	1	2	......	1	......	1	1	9	2	11	3	14
Gunshot Wounds	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Cut, Stab	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Burns and Scalds	1	......	3	1	4	1	......	......	......	......	......	1	......	......	......	1	......	2	4	3	7
Poison	......	......	......	......	......	......	1	......	......	1	......	......	1	......	......	......	2	1	2	1	3
Drowning	......	......	......	......	......	......	1	1	1	......	......	......	......	......	......	......	2	1	2	1	3
Suffocation	8	9	2	......	10	9	......	......	......	......	......	......	1	......	......	......	1	......	11	9	20
Otherwise	......	1	......	......	......	1	......	2	......	......	1	......	......	......	......	......	1	2	1	3	4
2.—Homicide.																					
Manslaughter	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Murder	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
3.—Suicide.	......	......	......	......	......	......	1	1	1	......	8	3	6	1	......	......	16	5	16	5	21
	9	10	7	2	16	12	7	4	3	2	11	4	9	1	1	2	31	13	47	25	72

DEATHS (continued).

	0 to 1		1 to 5		Under 5		5-20		20-40		40-60		60-80		80 and upwards		Over 5		All Ages		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Class VIII. **DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES.**																					
(*e.g.*, Dropsy, Abscess, Tumour, Hemorrhage, Mortification	1	......	......	......	1	......	......	1	1	2	1	1	......	3	......	......	2	7	3	7	10
Death from Natural Causes, etc.) ...	3	2	......	2	3	4	1	......	1	......	4	2	1	4	1	......	8	6	11	10	21
	4	2	......	2	4	4	1	1	2	2	5	3	1	7	1	......	10	13	14	17	31
Class **I.** **Zymotic Diseases** ...	108	85	68	71	176	156	15	13	9	10	3	5	9	4	......	2	36	34	212	190	402
„ **II.** **Parasitic Diseases** ...	......	1	......	......	......	1	......	......	......	......	......	......	......	......	......	......	......	......	......	1	1
„ **III.** **Dietic Diseases.**	......	......	......	......	......	......	......	......	2	......	......	2	1	......	......	......	3	2	3	2	5
„ **IV.** **Constitutional Diseases**	40	26	21	16	61	42	28	29	55	69	61	56	24	29	......	4	168	187	229	229	458
„ **V.** **Local Diseases**	199	154	83	53	282	207	40	27	68	71	129	126	128	151	11	13	376	3 8	658	595	1253
„ **VI.** **Developmental Diseases**	209	124	4	3	213	127	1	......	......	......	1	......	44	65	26	31	72	96	285	223	508
„ **VII.** **Violent Deaths**	9	10	7	2	16	12	7	4	3	2	11	4	9	1	1	2	31	13	47	25	72
„ **VIII.** **Ill-defined, etc.**	4	2	......	2	4	4	1	1	2	2	5	3	1	7	1	......	10	13	14	17	31
Totals	569	402	183	147	752	549	92	74	139	154	210	196	216	257	39	52	696	733	1448	1282	2730

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Leigh, March 6th, 1895.

To the Chairman and Members of the
Leigh Urban District Council.

Gentlemen,—

I beg to submit to you my Annual Report as to the sanitary condition and mortality of your District for the year ended December 31st, 1894.

During the year 487 deaths were registered, giving a deathrate of 15·46 on the estimated population—31,500. The deathrate for the preceding year being 22·45, and for 1892 18·45. The deathrate for the year is much below the average for this District and is mainly due to the absence of any serious epidemic.

The deathrate from the seven principal zymotic diseases being 1·8 per 1,000, as against 6·7 for the preceding year.

The number of births registered were 1,175, giving a birthrate of 37·61 as against 40·51 for the preceding year, when 1,253 births were registered.

The excess of births over deaths for the year being 688.

Of the 1,175 births 144 died before attaining their first year, being at the rate of 122·5 per 1,000 births. This is much below the average, and compares favourably with the preceding year, when the rate was 219·55, and for 1892 162·5, and 188 for the year 1891.

The proportion in the Districts for the year being Westleigh and Pennington 128·4, and for Bedford 110·2.

The number of deaths in the respective Districts were :—

Westleigh	194	Deathrate	16·6
Pennington	129	,,	14·42
Bedford	164	,,	14·9

The number of births :—

Westleigh and Pennington	794	Birthrate	38·75
Bedford	381	,,	34·63

The following Table gives the mortality at various ages :—

Westleigh.

Under 1 year	69
Over 1 ,, and under 5	31
,, 5 ,, ,, ,, 15	17
,, 15 ,, ,, ,, 25	11
,, 25 ,, ,, ,, 65	51
,, 65 and upwards	15
	194

Pennington.

Under 1 year	33
Over 1 ,, and under 5	16
,, 5 ,, ,, ,, 15	2
,, 15 ,, ,, ,, 25	4
,, 25 ,, ,, ,, 65	47
,, 65 and upwards	27
	129

Bedford.

Under 1 year	42
Over 1 ,, and under 5	20
,, 5 ,, ,, ,, 15	10
,, 15 ,, ,, ,, 25	11
,, 25 ,, ,, ,, 65	57
,, 65 and upwards	24
	164

Small Pox.—During the year 4 cases were reported, 1 in Westleigh and 3 in Bedford. The first occurred at Dangerous Corner on May 27th, and was admitted into the Sanatorium on the 28th, the disease in this case was contracted at the Workhouse.

On July 9th one case was reported at Mill Lane, Bedford, and at once removed to the Sanatorium. On the 23rd two more cases occurred at the same house, contracted from the above, and were at once removed to the Sanatorium: where the first of these three got the infection could not be satisfactorily traced.

Three cases from the Workhouse were admitted into the Sanatorium between the 14th and 30th May.

The last case of small pox was discharged on the 22nd September. All made a good recovery.

Scarlet Fever was the cause of two deaths, 50 cases being reported, the proportion of deaths to cases being 4 per cent.

For the preceding year the proportion being 11·3 per cent, and for 1892 9·12 of cases.

This disease cannot be effectually dealt with until means of isolating first cases is supplied and which is now under the consideration of your Joint Hospital Board.

Diphtheria caused 5 deaths, 4 in Westleigh and 1 in Bedford. 24 cases were reported. Westleigh 14, Pennington 4, and Bedford 6.

In most cases insanitary conditions were found to exist, and these, as far as possible, were at once rectified. In one case the sink pipe was found to be directly connected with the drain.

In many cases the sink pipes were found to be defective, houses damp, and privies and ashpits out of repair.

One house and adjoining property in King Street was condemned as unfit for habitation.

Typhoid Fever.—22 cases were reporte,d causing 7 deaths. They were distributed as follows: Westleigh 3 deaths, 10 cases; Pennington 1 death, 5 cases; Bedford 3 deaths, 7 cases.

In no case could the disease be traced to contaminated milk or water.

Insanitary conditions existed in most cases similar to those mentioned under the head of diphtheria. In one case the cause assigned was the stench from the sewer ventilator in the street.

Erysipelas caused 5 deaths, 40 cases being reported.

Measles was epidemic in Westleigh in the early part of the year and caused 11 deaths.

Whooping Cough.—3 deaths.

26 deaths were due to diarrhœa, 23 of these being in very young children.

They were distributed as follows :—

Westleigh 7, Pennington 6, Bedford 13. For the preceding year diarrhœa was the cause of 104 deaths, the greatest proportion being in Bedford, and the reason undoubtedly due to the larger percentage of children being put out to nurse and artificially fed.

Phthisis or Consumption caused 40 deaths.

Diseases of the Respiratory Organs, as bronchitis and pneumonia, caused 22 deaths.

Heart Disease 26 deaths, and injuries 14.

All other diseases, unclassified, 216.

During the year numerous complaints have been made with respect to unpaved streets, many of which are in a disgracefully insanitary condition.

I would again, as in previous reports, call your attention to the existing conditions of slaughter-houses, ashpits and privies, which, on the whole, are highly unsatisfactory.

The following nuisances have been dealt with during the year :—

Nuisances reported	228
Nuisances abated	218
Still under notice	10
Notices served by Inspector of Nuisances on Contractors for removal of Nightsoil ...	678
Notices served on Owners and Occupiers	248
Number of Canal Boats inspected	81
Number dealt with for want of repairs, &c.	6
Houses disinfected	151

The following insanitary conditions have also been dealt with :—

Houses condemned as unfit for habitation	9
Defective house drains	85
Foul ashpits drained	63
Privies and ashpits repaired ...	46
,, ,, removed ...	14
New privies and ashpits erected	16
Houses repaired	10
Defective sink pipes	9
Dirty bakehouses	10
Untrapped gullies	13
Insanitary yards caused by keeping poultry	18

In one case legal proceedings were taken for exposing fish, 120 lbs., unfit for human food for sale, and the defendant was sentenced to one month's imprisonment without the option of a fine.

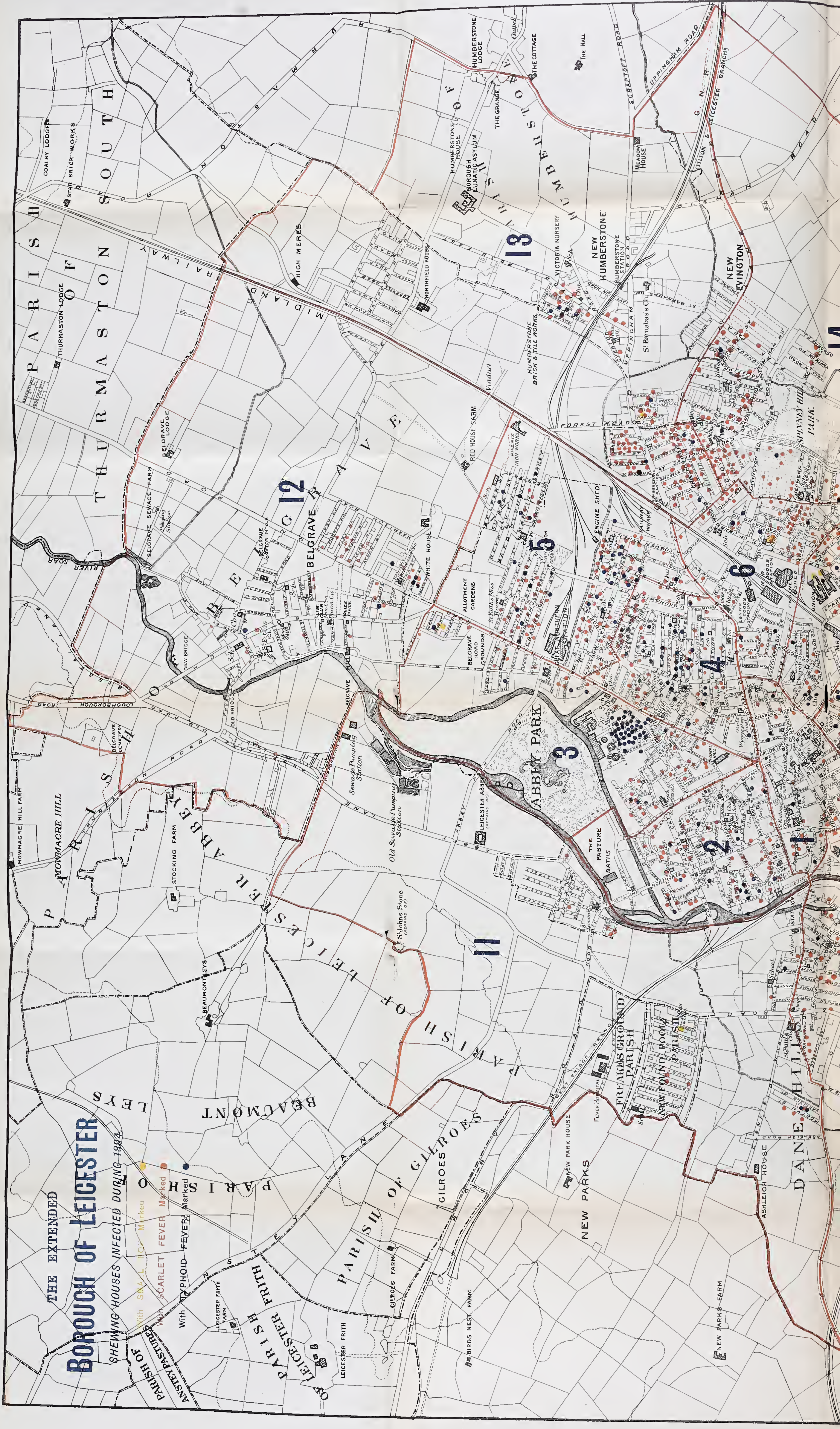
I enclose Tables A and B required by the Local Government Board and the County Council.

I am, Gentlemen,

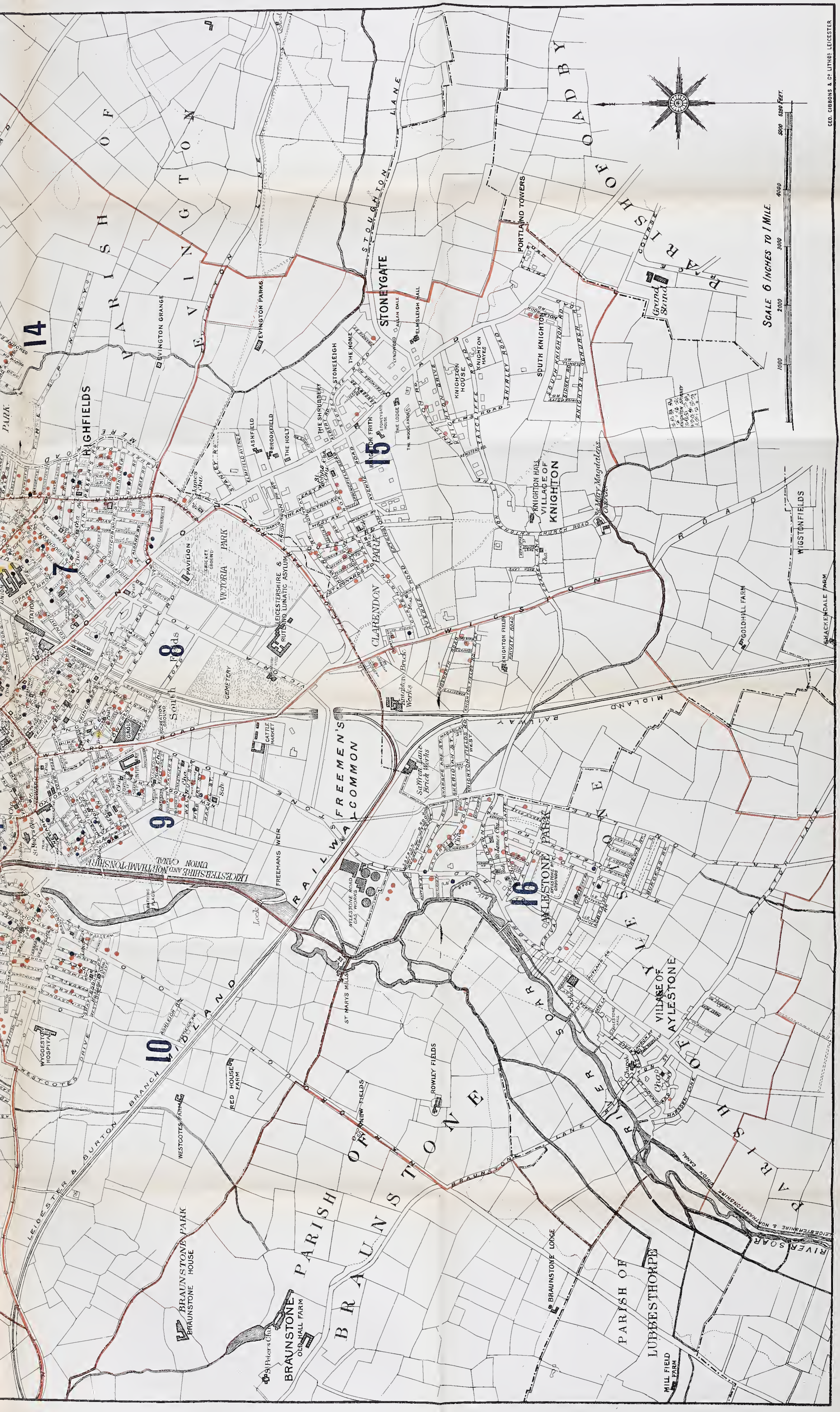
Your Obedient Servant,

James King,

Medical Officer of Health.



THE EXTENDED
BOROUGH OF LEICESTER
SHEWING HOUSES INFECTED DURING 1894.


PARISH OF EVINGTON
PARISH OF OADBY
PARISH OF BRAUNSTONE
PARISH OF AYLESTONE
PARISH OF LUBBESTHORPE
14
7
8
9
10
15
16
HIGHFIELDS
STONEYGATE
STOUGHTON LANE
EVINGTON LANE
EVINGTON GRANGE
EVINGTON PARKS
PORTLAND TOWERS
RACE COURSE
Grand Stand
SOUTH KNIGHTON
KNIGHTON HOUSE
KNIGHTON HAYES
SHIRLEY ROAD
KNIGHTON HALL
VILLAGE OF KNIGHTON
St Mary Magdalen's Church
CHURCH ROAD
WIGSTON ROAD
WIGSTONFIELDS
GOLDHILL FARM
KNIGHTON FIELDS
CLARENDON PARK
VICTORIA PARK
PAVILION
CRICKET GROUND
LEICESTERSHIRE & RUTLAND LUNATIC ASYLUM
CEMETERY
South Fields
CATTLE MARKET
RECREATION GROUND
FREEMEN'S COMMON
MIDLAND RAILWAY
Saffron Lane Brick Works
Knighton Brick Works
AYLESTONE PARK
AYLESTONE ROAD GAS WORKS
ST MARYS MILLS
FREEMANS WEIR
LEICESTERSHIRE AND NORTHAMPTONSHIRE UNION CANAL
RIVER SOAR
VILLAGE OF AYLESTONE
ROWLEY FIELDS
NEW FIELDS
BRAUNSTONE LANE
RED HOUSE FARM
WESTCOTES FARM
WESTCOTES DRIVE
WYGGESTON HOSPITAL
LEICESTER & BURTON BRANCH MIDLAND
BRAUNSTONE PARK
BRAUNSTONE HOUSE
BRAUNSTONE OLD HALL FARM
St Peters Chu.
BRAUNSTONE LODGE
MILL FIELD FARM
SCALE 6 INCHES TO 1 MILE
1000
2000
3000
4000
5000
5280 FEET
GEO. GIBBONS & Co LITHOS LEICESTER